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LEADING ARTICLES

THE NEWER NEUROLOGY.

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ONE must assume that there is a modicum of truth underlying the widely-voiced opinion among undergraduate students and general practitioners that neurology is one of the hardest, if not the hardest, branch of scientific medicine to comprehend. There must be real difficulties present; else why should this opinion be so widely held?

It would be absurd to assume that so many intelligent men cannot grasp what to others seems so easy of comprehension, logical and self-explanatory. The view is expressed—and in my judgment rightly so—that for definiteness, precision and scientific accuracy the teachings and findings of modern neurology place this branch of medicine second only to ophthalmology. If this view be correct, then it would seem to me that many intelligent men are either not as intelligent as they appear to be, or else they are being handicapped in some way by some previously acquired prejudice, erroneous conceptions or false ideas in connection with the operations of the nervous system. The latter is undoubtedly the true explanation, and in the following brief paper I will endeavor to point out the handicaps that I believe are leading so many men into holding confused and pessimistic notions in regard to a branch of medicine that to other men of no greater natural ability seems so clear and interesting.

I believe the whole matter can be explained in one sentence, by saying that the two sets of men, the pessimistic and the optimistic, are viewing neurology from entirely separate standpoints, and that these separate standpoints are respectively the anatomical and the physiological. At the present day a strict and limited adherence to the former point of view will lead along a slow, arduous and discouraging pathway ere the goal of neurological knowledge will have been attained, whereas studies conducted in line with the latter view will produce far more rapid, solid and happy results.

The anatomy of the nervous system, especially the gross anatomy, is an ancient science; the physiology of the nervous system is so modern a science that its very beginnings do not date beyond the memory of men still living. Before Virchow's day only the crudest notions of the structure of the human frame were in existence, notions which were based upon mere gross appearances and coarse lines of division. Those notions still obtain even today in our anatomical nomenclature, though we have long since learned that parts of the body originally referred to by those old names are no longer significant as integral functional units. Virchow was the first who showed the untenability of much of the old anatomical conceptions, both in health and in disease, when he promulgated his great cellular doctrine. This doctrine was so well founded upon accurate observation, its illuminating influence upon medicine was so brilliant, and its teachings were so practical in their bearing that the whole science of medicine was soon completely dominated by it. We are still living and working under that powerful domination. It is an anatomical domination, and the terms and descriptions of neurological anatomy still hold the upper hand in clinical neurology, though neurological physiology has proved that in many respects the old conceptions born of anatomy, both before and since Vir-

chow's day, are wrong and misleading. Here is the secret, in my opinion, why some men find neurology hard and confusing, while others find it easy and logical. The former, for various reasons, are clinging to the anatomical conceptions with all their ancient errors, while the latter are quickly adopting the newer and more accurate physiological conceptions. Let me, in a homely way, illustrate:

Anatomy tells us that the nervous system is made up of a brain, a spinal cord, and peripheral nerves, and accordingly we have heretofore divided our diseases into those of the brain, spinal cord and nerves. Physiology tells us, however, that there are no such functional differentiations in the nervous system as these; for many of the structures, tracts and pathways run from and are continuous in two or more of these artificially assumed parts of the nervous system. Physiology teaches most emphatically that the unit of nervous activity is a combination of cell and fibre, or cell and processes (neurone); that this unit is immensely multiplied; that it is here and there aggregated into a bunch for the purpose of forming a special apparatus for the performance of a special function, such as motion, sensation, vision, speech, etc; and that the assemblage of all of these special neurological apparatuses, with their parts reaching hither and thither regardless of the old-time, arbitrary anatomical lines of division, constitutes the nervous system in toto. To understand the working of this nervous system in health, therefore, and to clearly comprehend its failure to work in disease, one must almost cease to think of its anatomy—especially its gross anatomy as usually taught—and learn to comprehend its physiology, its functional constitution and arrangement, the why and wherefore of its neuronic activities and of the activities of the various special apparatuses into which the neurones are specially bunched and collected.

Suppose a railroad locomotive were out of order and an engineer were called in to investigate and correct the difficulty. And suppose he were to begin by ordering that the locomotive be divided into three sections by two large transverse cuts, one just behind the smoke-stack, and the other just in front of the cab. Then suppose he regarded each of these three divisions as more or less independently functionating parts of the entire machine, and began by picking out seriatim the boxes and cylinders, and wheels that he happened to find in each of these grand divisions, in order to observe what was wrong in their physical make-up. Does any one suppose that he would ever thus arrive at an intelligent solution of the reason for the failure of the running of the machine? Perhaps to a slight degree, but not completely. And yet that is exactly the way the anatomically minded individual, whether clinician or author usually goes about examining and describing a case of nervous disease. The brain and its so-called functions are investigated, then the spinal cord, and then the peripheral nerves; and the so-called symptoms evolved by the disease of these various parts are tabulated and the diagnosis is made of a brain, a cord or a nerve lesion. The resulting diagnosis is about as inadequate, if not positively unreliable, as would be the opinion of the engineer in the above examination of the locomotive.

To return to our homely illustration, let us observe what a better informed and more rational engineer would do under similar circumstances. He would first view the locomotive as a whole, then he would trace its various parts in their relation to other parts as to their functional interconnections. The apparatus that subserves the elaboration of the steam would all be gone over seriatim and in detail; then the running-gear would be carefully inspected and the interconnections of its various parts; then the apparatus that transforms the steam-force into movement, as the steam-chest, cylinders, connecting-links, wheel-pins, etc., would all be passed in review. In this way the examiner would sooner or later come to the break for which he was searching, for nothing would be overlooked. If the damage were not so extensive but what the locomotive could still run, though badly, all the more likely would he, as an intelligent engineer, closely observe the running, and by the interpretation that he could put upon the irregularity of that running, would he surmise and find the real source of the trouble.

As I wrote in 1901, using the anatomical conception of the spinal cord by way of illustration: "The spinal cord, as it is usually taught anatomically, is a more or less independent organ, made up of certain columns of white matter and certain central masses of gray. To these columns are attributed particular functions and assigned particular names and boundaries. Arbitrary divisions and subdivisions are laid, as, for instance, between the so-called anterior and lateral root-zones; fissures are described where there are no fissures; and mere disconnected, short, associative tracts are dignified with the name of column. As a result of all this, the cord in its entirety assumes, in a hazy way in the mind of the student, the characteristics of an individual, distinct organ attached somehow at one end to the brain, and giving off and receiving along its sides motor and sensory

nerve roots. When the student comes to study minutely the physiology of this organ, he is amazed to find that he has to learn its structure from an entirely different standpoint, and that its physiological dissection seems to nullify many of the arbitrary divisions and arrangements made in it by anatomy. He discovers that it is far from being a distinct organ, separate from and subordinate to the brain, but that both it and the brain, together with the peripheral nerves, make up a composite organ whose parts overlap and run into each other in a most marvelous complexity of structure and function. He is surprised to learn that the term column is as applicable to the cellular gray matter as it is to the fibrous white matter, being, in fact, a poor term to be applied to either. He is not a little confused when he observes that the nerves are not given off and received by the cord, but that certain efferent processes are sent forth from its central ganglionic masses to terminate in the muscles, while the sensory processes from certain peripheral cells are merely received into it to arborize around its own cells. A series of ganglia, with their appropriate efferent processes from without, constitute the cerebrospinal organ in the truest sense of the word. The peripheral neurones and the central neurones find merely a meeting place in the ganglionic gray matter surrounding the central canal, including the ventricles of the brain and the central canal of the cord."

The physiological method must be the one to be adopted in the study of a living, physiologically functionating organism. Anatomy may tell us of the appearance of the basic elements of the animal frame, but as a large part of its teachings are the result of the study of dead organisms and changed structures, we must be guarded in drawing inferences from such teachings and applying them to the living organism. As Lepine used to say, "it is superannuated to think along anatomical lines" in medicine nowadays. Robin insisted that in clinical work of the future, one must think and act along physiological lines and study first and foremost the diseases of function. Long ago Fagge wrote that "the symptoms of nervous disease are almost without exception, those of perverted nervous function."

"For each function, simple and complex, there corresponds a special nervous apparatus. . . . Each of these apparatuses extends through all of the neuronic levels; continues throughout all plains of section of the nervous system; has its own peripheral neurones, its neurones of relay and its cortical neurones. Each one has at one and the same ime centripetal fibres, centers, and centrifugal fibres. The visual apparatus for instance comprehends motor nerves that are quite indispensable for vision, just as the general motor apparatus would be powerless to act without its kinesthetic nerves. And thus vanishes the division of the nervous system into cerebrum, medulla oblongata, spinal cord—which division has nothing but a mere geographical value. Furthermore, there is not even a geographical unity in the nervous system, nor a unity in the direction of the nervous current; the system of neurones arranged in these various apparatuses, possesses unity only in its function, and that is a physiological unity" (Grasset).

And yet obvious as all this is to the student of the nervous system, on he goes trying to learn and teach what are the diseases of the brain and their particular symptoms, what of the medulla, of the cerebellum, of the spinal cord, of the peripheral nerves, etc. Is it any wonder that confusion ofttimes overwhelms him, and in the end he exclaims against the almost insuperable difficulties in understanding neurology. His difficulties will continue, and will even increase, until he awakens fully to the fact that scientific neurology nowadays follows the guiding strings of physiology rather than those of mere anatomy. Until physio-pathology rather than mere anatomo-pathology is made the frank basis of clinical neurology, there will be slight hope of intelligently understanding why a paralysis is sometimes spastic, and at other times flaccid; why a deep reflex is in one disease lost, and in another disease exaggerated; why the electrical reaction of degeneration appears with one form of muscular atrophy and not with another form; why an illusion of any one of the special senses is not the same as an hallucination of that same sense; why, as in syringomyelia, the tactile sense can be intact while the pain sense is completely abolished; why a tumor of one part of the brain will present a very different clinical picture from a tumor of another part of the brain. Anyone who has kept abreast of medical progress ought to recognize the great change that medical science is passing through. He ought to be able to see that physiology rather than mere anatomy is beginning to dominate in clinical medicine. If he does not quite see it yet, let him read the recent essays of Putnam, Cowles, Hall, and the foreign works of Krehl and of Grasset.

Grasset especially, one of the greatest neurologists of Europe, and whom many regard as the most advanced neuropathologist of the day, comes frankly out in his Les Centres nerveux; Physiopathologie Clinique, with a classification of neurological symptomatology based solely upon function and with the neu-

rone and the neurone concept as the basis for the interpretation of the diseases of the nervous system. "The nervous element, singly and individually, is the neurone." The diseases of this neurone, or rather of the apparatuses of which it constitutes the physiological basis are and should be the things studied in the field of clinical neurology. Hence Grasset considers these diseases, or rather their symptomatology, in his work of some 744 pages, under the following heads:

1. The central nervous apparatus of motility and general sensibility.
2. The central nervous apparatus for orientation and equilibrium.
3. The central nervous apparatus for language.
4. The central nervous apparatus for vision.
5. The central nervous apparatus for hearing, taste and smell.
6. The central nervous apparatus for the circulation, secretion, nutrition, digestion and respiration.

What an innovation in neurological literature! No mention is found here of brain diseases, cord diseases, peripheral nerve diseases. How simple and clear the reading of this book makes the symptomatology of neurology! Here, for instance, one is not puzzled in trying to understand how an Argyll-Robertson pupil or a trifacial anesthesia can occur as a part of the essential clinical picture of tabes dorsalis which in the old style used to be taught as a disease of the spinal cord. As Grasset shows, and as I have also constantly taught, tabes dorsalis is a disease of the sensory apparatus, especially the peripheral sensory neurones, no matter whether those neurones involve the function of vision or the function of general sensation.

The first and most obvious great change in our neurology which this newer physiological or physio-pathological method of study causes, will involve the classification of the diseases. Classification and generalization are the goal of every science, and they are a desiderata as much in medicine as in any other branch of systematic knowledge.

Realizing all this I presented to the profession, somewhat over a year ago and prior to the appearance of Grasset's work, a treatise on the diseases of the nervous system, in which I adopted a tentative classification based frankly upon a physio-pathological ground-work. As Grasset and others have done, I adopted the neurone concept of Waldeyer as the working hypothesis. As I said in the preface of my book, in spite of the fact that in regard to many of its details much has yet to be learned in connection with the neurone doctrine, the main principles which it lays down are all but universally acknowledged to be scientifically accurate and practically useful. I contemplated the nervous system as being made up of two distinct sets of tissues; the true, functionating tissues (the neurones) and the mere supporting, nutritive tissues (the vascular and connective elements). This made a grand division of nervous diseases into those that are primarily neuronic and those that are primarily non-neuronic or extra-neuronic. In the latter, the neurones are always more or less damaged of course, but secondarily. Tabes dorsalis is a neuronic disease primarily; myelitis is an extra-neuronic disease primarily, but affects the implicated neurones secondarily. Amaurotic family idiocy (Sach's type) is a neuronic disease; infantile spastic diplegia is primarily a vascular or extra neuronic disease. In the neuronic diseases degeneration is the dominant pathological change; and the degeneration limits itself more or less to certain groups of neurones, producing the so-called "system" diseases. Moreover in the neuronic diseases hereditary and neuropathic tendencies are marked in the etiology; the symptoms are practically entirely neural, psychic or psychoneurotic; the prognosis all but hopeless; and the treatment most discouraging. In the non-neuronic diseases, the dominant pathological change is vascular and is diffuse, irregular and scattered; inflammation is the most frequent manifestation; in the etiology, infection and trauma play the principal role; the symptoms are both febrile and psychoneurotic; the prognosis, so far as the secondary changes in the neurones may be excluded, is relatively favorable; and the treatment, under the same conditions, rather encouraging. Ample illustration of all this could here be cited, but my space forbids.

I next subdivided the neuronic diseases into the so-called functional and organic, explaining the while that in my opinion these terms represented rather differences in degree than in kind in the pathogenesis of the disease. The functional neuronic diseases, neuroses and psychoneuroses, were divided into those of the cerebrospinal and sympathetic systems; and the organic neuronic diseases into those of the afferent, efferent, and combined afferent and efferent systems.

As there are no functional differentiations in the vascular, connective-tissue elements of the nervous system, the diseases of the extra-neuronic class were discussed under the head of brain, cord and nerve affections, the terms brain, spinal cord and peripheral nerves being employed here merely for their topographical, or, to use Grasset's phrase, "geographical" signification.

I confess that in completeness of radical change of method, Grasset has far outstripped me in the presentation of the diseases of the nervous system. Perhaps, however, at the present time, in which the pathology and nosological status of some diseases are still in dispute, a less radical change than that of Grasset's has its advantages. Nevertheless I am convinced that in the future, the entire classification of nervous diseases will be remodeled along the lines which I have indicated, and that physiological pathology will dominate in the study and presentation of clinical neurology.

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THE TREATMENT OF GALLSTONES WITH CHOLOGEN.*

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THE idea of dissolving gallstones has been in the minds of the medical profession since Durande, in 1782, recommended a combination of sulphuric ether and turpentine for this purpose. Durande's remedy of three parts of ether and two parts of turpentine, became famous. It has entirely lost the reputation it once had. Various medications have had the credit of dissolving gallstones. The alkaline carbonates were supposed to be solvents on accounts of the great solubility of the cholesterates of potassium and sodium. Chloroform was recommended by Corlieu in ten drops doses in water. Kennedy came forward with the olive oil treatment. Petroleum and almond oil have been used. Latterly the oleate of sodium under the name of eunatrol has been recommended. Ferraud lauded glycerin and Vichy water. Salicylic acid has been used for years. All seem to be without value. Vichy and Carlsbad both report wonderful recoveries by the use of water from these springs. We are unable to tell whether gallstones are really dissolved, or whether they are put to rest by these alkaline waters.

It is extremely difficult to secure satisfactory evidence as to the virtue of any medication to dissolve gallstones, considering that we can never be sure of the existence of gallstones until they are found in the feces, and then the particular ones found might have been the only ones present. Patients may go for years or the balance of their lives with a gall bladder full of gallstones without any symptoms whatsoever, whereas there may be comparatively few gallstones with innumerable sypmtoms. Kehr says that an attack of gallstone colic may be the only one the patient may ever have whether he takes any medication or not. It is therefore very difficult to determine the efficacy of any remedy for gallstones.

Normal bile contains 1 to 2% of cholesterin, and gallstones cannot form as long as the normal constituents are held in solution. The quantity of bile eliminated by a subject in good health has been variously estimated at from 500 cc. to 1500 cc. in twenty-four hours, the quantity varying with the amount of fluid, rather than with the total solids. The principal constituents are the coloring matters, the cholesterin, the bile salts, some inorganic salts, mucin and other substances.

In 1903 I became interested in a report by Dr. Robert Glaser on the "Cure of Gallstones by Chologen with a Report of 100 Cases." Chologen is a combination of mercury, podophyllin, melissa, camphor and caraway. His results were so encouraging that I quickly availed myself of the privilege of studying his method in the treatment of gallstones, and with this point in view I entered his sanitarium at Muri, Switzerland.

From the many patients in the Glaser sanitarium, I was impressed with the peculiar fact that none of these suffered from gallstone colic. Although all of the patients with whom I came in contact gave a history of having had gallstone colic before coming to the sanitarium, this was one of the symptoms that disappeared soon after beginning the treatment. Many had been to Carlsbad, Vichy and other spas, while others had had operations for gallstones, and were three for the relief of gallstone colic. Whether chologen dissolves gallstones or allays all symptoms by relieving the catarrhal conditions and placing the gallstones at rest, I am unable to say. I can say, however, that the results from chologen treatment were better than I had anticipated. Chologen relieves gallstone colic and improves the general health to such a marked degree that I am led to believe the stones are disintegrated and eliminated. There were no contraindications. Chologen was well borne by all patients—children, old men and pregnant women. It always acts well when properly administered.

Many physiologists have experimented by inserting large gallstones in the gallbladder of healthy dogs under strict asepsis,

*Read before the Detroit Academy of Medicine, October 23, 1905.

and found that in periods of from three to six months they were completely dissolved, thus proving that the healthy bile has the power of dissolving gallstones. The action of chologen is to bring about a secretion of healthy bile that has the power to act upon the calculus in such a way as to disintegrate and dissolve it.

Glaser's investigations have revealed quite a series of nervous symptoms, and he believes that cholelithiasis from beginning to end is a nervous affection and not an infectious disease. The first symptom is a functional derangement of the secretory nerves of the liver, especially the sympathetic; the second is the precipitation of cholesterin—infection of the bile; the third is catarrh and deposit of bilirubin calcium; the fourth formation of a calculus in the neck of the gallbladder and development of local hyperesthesia followed by gallstone colic.

In contradistinction to the idea that cholelithiasis is a nervous affection, is the supposition that it originates through infection from the intestine; that it is an infectious disease; the first stage being a bilious infection, the second a catarrh of the bile ducts, the third the formation of stones, and the fourth consisting of gallstone colics. Internal treatment of cholelithiasis has not been attended with marked success in fighting this supposed infection. On careful examination we find that the theory of infection is by no means to be considered as proved. As to the experimental production of gallstones by artificial infection of the gallbladder, Riedel remarks that the conditions necessary for making these experiments successfully do not exist in the human body. A mere injection of germs into the gallbladder does not produce gallstones. To effect this the cystic contractions have to be artificially inhibited and the bacteria, according to Mignot, should only be of attenuated virulence. In the case of biliary infection the only microbe to be really considered is the bacillus coli communis, and this seems to be merely a harmless germ when found on normal tissue, and pathogenic only when found on tissues that have undergone change.

Every physician is aware that gallstone colics frequently occur suddenly while patients enjoy perfect health, and disappear as mysteriously. Sudden anger or fright, a psychic shock, etc., suffice to produce this condition. It is difficult to understand how a psychic shock lasting five minutes can change a latent infection into an acute exacerbation. There must be a certain something else (Riedel), because the infection alone is not sufficient to account for the manifestations, and this something is the point where the internal physician can and should start in order to work out a serviceable theory for the treatment of his patient.

The germs of infection no doubt play an important role in the clinical picture of cholelithiasis, but probably they are not the primary causative factors of the disease, but only secondary settlers. The possibility of infection cannot develop from the intestine in normally composed bile. Normal bile is sterile. Normally composed bile is a product of the liver due to the influence of its secretory nerves (Pflüger). Only when these secretory nerves harmoniously induce the activity of the hepatic parenchyma, will there be a product which contains all component parts in correct proportion— yellow, clear, sterile bile. For our purpose we are especially interested in the correct proportion of biliary acid salts to cholesterin, as the former are solvents of the latter, and also represent those component parts that can resist the development of infectious germs which may have arrived there from the intestine. Let us assume that hepatic function is changed by an affection of the secretory nerves, causing a disproportionate overproduction of cholesterin and a disproportionate underproduction of bile-salts. There will be a deposit of cholesterin in the gallbladder, which crystalizes around desquamated epithelium, forming a nucleus, and this will be the beginning of a gallstone. Bile abnormally composed is not able to resist infection from the duodenum in the same way as normal bile; there will be additional infectious biliary decompositions which accelerate the secretion of cholesterin. There is no doubt that biliary calculi, once formed, constitute foreign bodies which easily give rise to catarrh, especially when there is a simultaneous infection. When gallstones are first formed, patients do not suffer from biliary colics, and may carry their gallstones without experiencing any inconvenience, and perhaps without knowing it. To cause trouble, some special irritation is required, and this may be assumed to come from a calculus penetrating into the neck of the gallbladder where it will settle. Occasionally the mucous membrane underneath such a calculus is found to be ulcerous. As soon as matters have arrived at this stage, the pathologic condition is complete. Gradually local hyperesthesia manifests itself which in many cases leads to general nervous disorders. The mine, so to speak, is laid. Sudden fright, anger, a badly digested meal, pressure on the abdomen, a sharp movement, the shaking of a train or carriage, palpation by the physician, colds, etc., are factors apt to bring the long prepared shock to a head.

Glaser observed a sign occurring at the tip

of the tongue which has become an important factor for the diagnosis. It can very frequently be noticed that the papillae fungiformes at the tip and margin of the tongue protrude in the shape of red nodules, almost the size of a pinhead, and resembling, the red seed on the ripe discus of a strawberry. Patients with this sign generally feel the attacks coming on for hours and even days. In other cases these papillae do not protrude. In such cases the paroxysms generally come on quite suddenly, require only short preparation or aura, and remind one of epilepsy.

The chologen treatment of cholelithiasis is founded upon the theory of it being primarily a nervous affection. The first step is to influence the secretory nerves of the liver in such a way as to restore their harmonious function, so that the hepatic secretion again becomes normal. We may then expect that no further stones will be formed and that those which have already been formed will become disintegrated. It is not impossible that this process really takes place more often than we realize without medical assistance, epsecially when patients are removed to other and more healthy conditions of life which causes the hepatic functions to become normal again. The quantity of bile-salts contained in the human bile fluctuates between wide margins—according to Landois between 6 and 11%. The idea might be conceived, and indeed has been conceived, to select just these bile salts, sodium glycocholate and sodium taurocholate as suitable agents to dissolve gallstones. It was found that although these salts are excellent cholagogues by considerably increasing the quantity of bile, they do not better the proportion of the bile constituents in the desired direction. They increase the quantity, but do not improve the quality of the bile. This is unfortunately the case with most of the cholagogues. For this reason all the hopes that were placed in remedies of this kind were destined to disappointment.

A remedy such as we require should in the first place increase the specific bile components, especially the biliary acid salts, without rendering the bile thick or viscus. Furthermore, this remedy should be assimilated by the bile in order to be able to develop antibacterial and anticatarrhal effects in the bile ducts. It is also necessary that this remedy should remove any existing hyperesthesia and and hyperkinetic energy, it has to overcome the almost constant habitual constipation, and all this must be accomplished without producing any injurious effects, even after months of continuous treatment.

There is no single drug or substance which will produce these manifold effects, nor is there any single combination which answers all individual requirements. After hundreds of experiments Glaser has fortunately succeeded in preparing three mixtures which answer the purpose in almost all cases. But even these mixtures have sometimes to be combined with each other. They consist of mercury, podophyllin, melissa, camphor and caraway in different proportions and are made into tablets called chologen* Nos. 1, 2 and 3.

In adapting the remedies to individual conditions, notice should be taken of their effect upon the movements of the bowels; the effect should be decisive, but not continuous. It is desirable to have one or two evacuations a day. The next point which requires attention is the selection of the proper tablets in such a way as to counteract colicky manifestations. The noticeably favorable effect of chologen is the great rapidity with which the gallstone colic is relieved, the patient feels better and the continuous sensation of tension and pressure disappears with the extreme mental depression which frequently exists. For the purpose of illustrating the manner of recovery in the treatment of gallstones with chologen I submit the following cases:

Case I.—Mrs. B., aged 48 years, consulted me April 20, 1904. She came with a history of having frequent attacks of gallstone colic. She belched a great deal of gas, had headache and constipation. She said her stomach was sour, and she frequently tasted food previously eaten. Had lost twenty-five pounds in weight. Her painful attacks which at first came on once every six months were then coming every week. The gallbladder was easily palpable with a peculiar feel suggestive of gallstones and tender on pressure. An examination of her stomach contents showed a condition of hyperchlorhydria. She was given salicylate of soda before meals and equal parts of sodium bicarbonate and magnesia just after meals. She began to feel somewhat easier, but continued to have attacks of severe pain which could be relieved only by hypodermics of morphine. I advised operation for gallstones, but patient refused. At this time I lost track of the case on account of my visit to Dr. Glaser in Switzerland. Upon my return patient consulted me again for her gallstone colics. On September 28, 1904, she was given chologen No. 1, two tablets three times a day before each meal. This brought on diarrhea and the tablets were reduced to one three times daily befor each meal. Her skin which was previously yellowish, began to clear up, and she

*Chologen tablets are prepared at the Physiologisch-Chemisches Laboratorium, Hugo Rosenberg, Spichernstr. 19 Berlin, Germany.

improved immediately. After taking chologen for three months she regained her weight, and was seemingly in good condition. She has never had a recurrent attack.

CASE II.—Mrs. P., aged 54 years, consulted me October 19, 1904. She gave a history of having gallstone colic for ten years. The attacks came on usually at night. She belched a great deal of gas, suffered with constipation, pain in the back, which ran up to the tip of the right shoulder, had been jaundiced many times. During the past two years the attacks of gallstone colic came more often. In September last the colic was attended with a yellow discoloration of the skin, dark urine and her fecal matter was of a light color. She was greatly emaciated. Liver slightly enlarged and she had a gastroptosis. The gallbladder could be easily felt and was quite tender under pressure. Patient had no appetite, was nauseated, and as soon as she ate had a feeling of fullness and desired to belch gas. Was given chologen No. 2, two tablets three times a day before each meal. November 3, 1904, there was no improvement, and on November 6th she had another attack of gallstone colic necessitating a hypodermic of morphine. I was inclined to the belief that this hypodermic was really unnecessary for we must remember that morphinism is not an uncommon thing with gallstone patients. I then added chologen No. 1, two tablets at bedtime with chologen No. 2. The evacuations of the bowels were better and patient began to have a feeling of well being which she had not felt in some years. After taking chologen tablets for two months the gallbladder was not tender and patient felt comparatively well. She has greatly increased in weight and strength and has not had another attack.

CASE III.—Mrs. J., aged 52 years, consulted me November 4, 1904. She had been sick for three years suffering with nausea nearly all the time. Had been constantly losing in weight until she lost forty-eight pounds. Had such severe pain after meals that she could take only small quantities of food at a time. She had attacks of vomiting and pain in the epigastrium. This pain came on suddenly and was so severe that it was necessary for her to take a hypodermic of morphine. Of late these attacks had been getting worse. The pains were of a boring character and ran through to the back. She had had as many as three attacks in one week. When she first consulted me she said her appetite was quite good, but she did not dare to eat on account of pain. She complained of severe pains in the abdomen coming on at midnight very suddenly. The pain disappeared slowly after having taken a hypodermic of morphine. The bowels seemed to be regular. In the right side over the gallbladder there was extreme sensitiveness to pressure which brought out a pain that radiated toward the right. She was slightly jaundiced, urine was dark but contained no bile. Could not lie on her left side without suffering pain in the hepatic region. I made a diagnosis of cholelithiasis, and on November 8, 1904, the patient was given chologen No 3, one three times a day before meals. Patient improved from the beginning. Her bowels moved daily and the tension over abdomen subsided. She began to gain in weight and was relieved from the frequent attacks of pain of which she previously complained. At the end of four weeks the pain produced by pressure over the gallbladder had entirely subsided. At the end of three months patient was as well as she ever had been and seemingly had made a complete recovery.

CASE IV.—Mrs. C. C., aged 48 years, consulted me November 14, 1904. Had had attacks of pain in her stomach for the past three years which were called gastralgia. These attacks had been getting worse until they came every eight or ten days. They came on suddenly without any warning. She had been treated for gastralgia until her physician diagnosed gallstone colic and sent her to me for treatment. Gallstones had never been found on examination of her feces. When I first saw her she had a yellow discolored skin with a marked yellowness of conjunctiva usually found in jaundice. There was pain upon pressure over the gallbladder and I confirmed the diagnosis of gallstone colic. She was given chologen No. 2 one tablet before each meal, and chologen No. 3 one tablet between meals, thus receiving six tablets a day. Her improvement began at once and at the end of four weeks she was taken with a sudden attack of gallstone colic but not nearly as severe as the previous attacks. At this time it was not necessary to give morphine for an application of equal parts of olive oil and chloroform relieved the patient. She was then given chologen No. 3 one tablet before each meal and chologen No. 1 one tablet at bedtime. She has not had another attack, has gained in weight and is seemingly in good health. She continued the treatment for three months and is now taking chologen again for another three months, as this is necessary to overcome the chronic constitutional condition.

CASE V.—Miss N. G., aged 32 years, consulted me December 14, 1904. Had had attacks of gallstone colic for the past four years.

When she first consulted me the attacks were coming on every two weeks. Her appetite was poor, some distress after meals, her evacuations were soft, diarrhetic in character. She said if it were not for the sudden attacks of pain in the right side of the abdomen she would be perfectly well. She had had frequent attacks of jaundice. In the beginning one hypodermic of one quarter of a grain of morphine would relieve her colic, but when she consulted me she needed three-quarters to one grain of morphine before she became quiet. The diagnosis of cholelithiasis was made. She was placed on chologen No. 2 two tablets three times a day before meals. From this time the pain entirely ceased. Appetite better, movements of the bowels regular and patient felt quite well. Patient kept up the treatment for four months and is now in good condition.

Case VI.—Mrs. R. J. H., aged 50 years, consulted me December 16, 1904. Five years ago she was taken with gallstone colic. Was better until three years ago when attacks came on more frequently. She felt as though a red hot iron were in the pit of her stomach. Continually got worse until she had taken a hypodermic of morphine. One week before her attack she would have pain. Bowels were always constipated. Had lost twelve pounds. December 20th was given chologen No. 3 two tablets three times a day before each meal. She began to have diarrhea and the tablets were decreased to one tablet three times a day before meals. The patient began to improve from this time, and is now in better health than she has been for years.

Case VII.—Mr. G., aged 72 years, consulted me January 24, 1905. He was always in good health until the age of 54. For twenty years he has had pain in the right side of his abdomen. During the past ten years he has had frequent attacks of colicky pains. During the past year his physician called his attacks gallstone colic. He had been in bed four months with chills and fever, a temperature which would at times go up to 103. At the time he first saw me his appetite was poor and he had distress immediately after eating which would last an indefinite period. Suffered greatly from flatulency, color of feces light. Had constipation, some backache and tired quickly upon the least exertion. Slept poorly and was jaundiced. Upon physical examination there was extreme tenderness over the gallbladder. His liver was greatly enlarged. During the winter when he had fever he had consultation as to what was best to be done for his gallstones and the two surgeons and attending physician thought, on account of his age and weak condition, that it was better not to operate. On January 30th patient was put on chologen No. 3 two tablets three times a day before meals with chologen No. 2 two tablets at bedtime. On account of a hyperchlorhydria he was given an alkali after meals. His bowels which were previously constipated began to move better. His attacks of boring pain, which felt as though they were going right through the vertebrae, began to cease. His improvement was gradual and continuous until February 20th he was taken with chills, fever and pain which subsided after an attack of vomiting. Since then his improvement has been continuous. July 10th he went East to attend a convention apparently in good health. He is still under treatment and constantly improving.

Case VIII.—Mrs. F. L., aged 44 years, consulted me February 20, 1905. Suffered from gallstone colic for four years. Between attacks patient was practically well. She was anemic and badly nourished. The pain for a long time was supposed to be appendicitis. The tenderness of the gallbladder, jaundice and localization of the severe pain during the attacks made a diagnosis of gallstones quite positive. She complained of a bloated feeling and belched a great deal of gas. She was placed on chologen No. 3 two tablets three times a day before each meal and chologen No 1. two tablets at bedtime. Her improvement began at once and she is now in a very much improved condition.

Aside from the treatment with the various chologen preparations it is advisable to eliminate the cares and worries of daily occupation. Considering that cholelithiasis is in the main a nervous disorder, it can be easily understood that the constant excitement and vicissitudes of modern high-strung life hinder rather than aid the effect of medical treatment. It is a well-known fact that exercise in the open air, combined with repeated deep breathing, produces a decidedly favorable influence upon the functions of all organs, notably that of the liver. The accelerated circulation of the blood, the profound breathing and the increased ascending and descending movement of the diaphragm promote the preparation and secretion of bile. The diet should be carefully selected as long as there are inflammatory conditions in and around the bile ducts. This means that only small quantities of easily digestible substances should be eaten at a time, and that these should be slowly and thoroughly masticated. A mixed diet, in which meat and vegetables also find a place, is one of the most excellent means to increase hepatic function. Lob-

ster, salmon and raw fruit should be excluded. The principal thing is thorough mastication of regulated quantities, but no starvation.

With my experience in the treatment of gallstones with chologen, I agree with Glaser, Meyer, Winterberg, Siegmann, Fränkel, Jacoby, Margoniner and others in that the treatment with chologen should be tried before resorting to surgical measures except in cases of empyema of the gallbladder, perforation, general infection, abscess of the liver, extensive inflammatory adhesions or malignant neoplasms. After surgical operation chologen is indicated to disintegrate the small stones lodged in the bile ducts and influence the bile so that it will exert its healing effect upon all catarrhal conditions.

It is necessary to study each case carefully so as to be sure that each patient is taking the proper quantity and to take each individual into consideration just as we do in the administration of other remedies. I feel convinced that chologen will find a welcome place in our materia medica for the treatment of gallstones.

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MISSOURI STATE MEDICAL ASSOCIATION.—A most interesting and profitable meeting of the State Society was held at Jefferson City on May 15, 16, 17, the sections being well attended. After a strong session in the general meeting on Thursday morning, Dr. C. H. Wallace, of St. Joseph, was elected president. A full report of this meeting will appear in our next issue.

THE RELATION OF MAN TO NATURE (A STUDY PROMPTED BY "TESTIMONIES OF THE SEPULCHRES").

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NEW YORK.

FOURTEENTH PAPER.*

I have seen nowhere any view similar to that which I have expressed of the Anglo-Japanese alliance. Yet I feel that it is a correct view. With the study that the Easterns, particularly the Japanese, will give to socialism, and to the form of representative government that they think they need, and the entanglements that are foreshadowed with the nation-politics of Europe, great trouble is in store for them, from this time on. It means blood.

I would be glad to learn that they intend to study our Western crime-jurisprudence, and thus get rid of their fearful system of torture. Just think of the horrible picture of the "Lintze" execution, which is borrowed from China. I have photographs of this kind of capital justice taken by my brother, who is chief engineer of the Canton and Hankow railroad. They represent the cutting into "thirty-six" pieces of a living victim. The executioner first gouges out, or crushes the eyeballs of the poor wretch tied to a bamboo cross. Two assistants stand one on each side, with huge fans to ward off the arterial spoutings, while a third assistant is represented on hand, with an armful of freshly sharpened knives. The cheeks are cut off, the breasts sliced off, then the biceps, triceps, gluteals, thigh muscles, calves; the dismemberment commences from the hands, and then the feet up to the trunks. As last cuts, a knife is run through the heart and the head cut off.

The last thought in civilization of the Japanese I think will be improvement of their cruel Chinese justice, which they still hide from the prying eyes of Westerners.

The remark of Lord Salisbury twenty years ago, speaking of Port Arthur, "Russia has got nothing," is verified. Russia should have put her household in order before going abroad into Manchuria. Even now in the hour of humiliation her execrable autocracy and the subservient hierarchy do not see that which is plain to the world, the necessity for internal reform and the riddance of the state from the large remnant of feudalism.

I must confess that my sympathy is with its people, and not with its rulers. The dominant class, living a life of luxury, frivol-

* The first paper of this series appeared in the MEDICAL FORTNIGHTLY issue of April 25, 1905.

ity, dissipation, gambling and thoughtlessness of Russia's welfare as a unit nation, upon money mercilessly gathered from the blood and bone that produced it, celebrated themselves in the gilded resorts of the world; and even in the hour of strife they pilfered from the supplies of money and of goods destined for the men at the front, who, had they been able to win, in spite of incompetent leadership, would have been deemed no better than as mounds of material upon which their masters could strut and swing the knout.

The Anglo-Japaneses alliance is a master stroke of policy for England, but a great mistake for Japan, whose true course is to keep from entangling alliances with Europe, and co-operate with China in the development of their common interests as Asiatic people.

The cession of half of Saghalien was not a military necessity, and was a political mistake. Russia was to leave Manchuria, and Vladivostock become of but little value to her, and no object for Japan to wish. With this exception and each side bearing its individual expense of the war, the lapse of time will show the greatness of Japan's wonderful victory resulting from a world astoundiing audacity.

Mr. Witte, the Russian peace plenipotentiary, interviewed by the Slovo's Portsmouth corresponent, is reported to have said: "You see what one gain's by standing firm. I was in a frightful position; I had no right to accept a compromise. A rupture seemed likely to enlist the sympathies of all sides of Japan. President Roosevelt appealed to my patriotism, humanity and good sense. Fortunately, I succeeded in holding out to the end. "The Japanese could not read in my face what was passing in my heart. From the outset I assumed such an indifferent tone that eventually it carried conviction. When the Japanese presented their written conditions I laid them aside without looking at them, and spoke about something else. On leaving the room I purposely forgot the conditions, which were lying on the table. When one of the Japanese plenipotentiaries drew my attention to this, asking if I did not wish to take away secret documents, which some one might read, I put the papers carelesssly in my pocket. It was thus to the last minute of the negotiations."

These and other similar utterances ascribed to Mr. Witte will react against Russian interests hereafter, even where Witte is not concerned in negotiations. Representing Russia, he now betrays trepidation then. His method was justifiable. His self-consciousness now, he will later regret. The three Rs to be learned at St. Petersburg, are: Russia, Regeneration, Reform; and a fourth may be added now, Repression of the ego.

Some white man's brain in the pay of Japan, or of England, either open or concealed, has furnished the convolution covered with gray matter, which has worked out the appearance of superiority of the East over the West in the Russian war. Because an English admiral proudly states of his country's ally, which for the moment, supplied with British gold to fight England's battle, has its heel on the white Russian's neck, " that Japanese system of training stokers must be adopted by England," there does not seem to be just reason why we must assume that in "intellectual power Japan stands fully abreast of Europe and America." Before we could reach that conclusion it must be shown that the system was not originated by some hidden foreign tutor. And before Japan could claim credit even for the working out of the system, independent of its originality, this must be shown. For even the adaptation of it, to the requirements of the war with Russia, Japan being nearer her base, while Russia was far from hers, it would not be shown that Japan was superior in intelligence. She might be superior in something else, quite as necessary to accomplishment of the desired end.

Intellect is one thing, emotion or sentiment is also one thing, but religious fanaticism in a god emperor's cause, is quite another. The will to do something warlike, might impel to success on Japan's side the absence of which with Russia might operate for failure. The belief in a Mikado-Avatar (Emperor Mutsuhito), by an ignorant stoker-class, even if directed by a more educated set of humans tutored by Englishmen, and resulting fury or freocity on the part of the fanatics, might imperatively work out the task with superhuman will. This would not be evidence of intellectual superiority, enough to show that the East was abreast of the West. It is probably that this last force, and not one of intelligence at all, made those muscles of the stokers more contractile, more subjective to discipline; more pliant to use in the set tasks on the Japanese battleships. Such accurate muscular adaptability was mere animal function, and not intellectual. Ants and bees work, just as exactly naturally, fearing some recognized penalty, in case they fail in their tasks. And there is just as much intellect shown by the ant and by the bee, in all that they do, as was exhibited by those stokers, those Asiatic pygmies.

Manual dexterity is a sensory function, which may be ordered, and guided by savage will as by civilized intellectual or moral incentives. Savage sensory purpose might be attended with brutality and unjust, unnec-

essary bloodshed. Intellectual purpose would be attained without much bloodshed, or with none at all. While moral impulse would influence the doing without treacherously cutting a man's throat, or shedding a drop of his blood in warfare, but by diplomancy, or amenity of reason.

The white brain of Russia accomplished more in the clash between Eastern and Western civilizations, in one week's time in the Peace chambers at Portsmouth, than Japan's brain did in the whole year and a half of more barbarous work, of slaughter planned, studied and laid out in the ten years of preparation. The Japanese brain needed only to be put in a secret chamber of peace at Portsmouth, where it could not have its usual recourse for advice from some English brain, to at once be overcome by the Russian brain. This intellectual, more human victory, far outshines the sensory animal victory of the Wujin brain of East Asia.

Has the world learned yet "with astonishment, that Japanese are not mere imitators, but originators," as the London Japanophiles say. Has the present war proved anything as to the '"superiority" of Japanese in hygiene, sanitary care of armies, in strategy, conduct of battles and all the other things claimed so conceitedly by themselves or their friends, or by certain well paid emissaries, Englishmen or Americans, employed by the London Anti-Russian press propaganda? Until we are permitted to get at the truth, or those statements are substantially corroborated later on by some reliable evidence, not given by Japanese, or paid press agents of Great Britain, we should accept one and all of them, cum salis granum.

It was claimed for General Oku's army, that but an infinitesimal number of deaths had occurred, in an enormous number of sick soldiers. I myself showed conclusively that that statement was grossly incorrect, for the morbidity and mortality of one disease alone, affecting the young males of the army would give a larger percentage of sick and dead. The medical chief who spread abroad that wrong analysis; knew well what his orders were, to deceive the Europeans. A chain is only as strong as its weakest link. If a statistical lie was told to the galleries of Europe, for medical applause, why should we not question all the other statistical statements made to attract the sympathy and applause of Westerners.

I know that there is as much dishonesty in Japanese data as given out by army and navy officials, as there is known to be in all Japanese business dealings. Everything as news is manufactured on order. Like the iodide of potash costing us $5.50 a pound, at my hospital in Tokio, we are furnished bromide, which looks like iodide, but costs the person who sells it to us only 50 cents a pound. Two lithographers were imported by the Japanese from San Francisco, and were set to work in lithographing Power & Weightman's and Rosengarten & Sons labels, "Iodide of Potash," which were pasted by the wily Japanese on bottle of bromide. I bought of these pretended pounds of iodide, hundreds of bottles before the dishonesty was detected.

Is any one surprised then, that I question the honesty of Japanese reports. The story of sickness and lack of mortality in General Oku's army in Manchuria was a lie out of the whole cloth. Some Americans are deceived by the treacherous Japanese, but not those who have intimately served them. "The superiorities" shown in the war, proves in my opinion, merely the astuteness of the British lion's agents, who hide behind the monkey skin of Japan, whose joint interest for the national moment, is opposed to the Russian bear's.

An important article for the day is published by the Staats Zeitung, September 4, 1905, and is entitled "The Reed-pipe of Peace:" "Again is heard, after stormy days, the note of the reed-pipe of peace. The Berlin journals accent, with the memory of the days of Sedan, progress in the approach between Germany and France. France was endeavoring, if not quite successfully, to dismiss the painful recollections, while towards her neighbor had come a juster perception of the world situation. And the official "North German Allgemeine Zeitung," confirmed the peaceful attitude and better estimation of Germany on the part of the English press.

There remains, then, the question, Why all the tumult of the time just past. France cannot have forgotten today all the pains of yesterday, and it is as little plausible that the polite reception which the British fleet found at Swinemünde can bring about a sudden change in the official intention in England. That the British Baltic sea journey has been made without mishap can certainly afford occasion for felicitation; but the cold tone of the despatch of the British admiral to the Kaiser, and the similar tone of the imperial reply, indicates but little perceptible improvement of relations.

Though the situation has in fact taken on a more peaceful form, yet it does not permit a clarification of the immediate events, and the feelings of the moment. The British war party has apparently perceived that after France has wholly withdrawn, a war which England alone would have carried on with Germany, must at last, in spite of seeming

monetary results, have met with little reward. And France has drawn back because she would not pull out of the fire chestnuts for England. But the germ of conflict remains. Today the single interest of France, is to forget "painful memories." But these memories will arise anew, so soon as a favorable moment arrives for the settlement of accounts. The polite and worthy reception which the English found at Swinemünde may have occasioned in the English press a quieter attitude in the discussion of the relations between the two countries. But the subjects of domestic contention between England and Germany remain. And therewith remains likewise the danger to peace. May today the reed-pipe of peace again be heard; may the clouds which yesterday darkened and threatened the horizon of Europe be scattered! The signs of a tempest remain.

There comes into consideration not only the strained relations of Germany and France and England. In the Balkans, the lightning is again seen; again comes information of predatory occurrences and bloody race murders; and the Sultan of Turkey has in a roundabout way deferred the reception of the reform suggestions of the powers for Macedonia. The situation there is dangerous, and the more dangerous, as with the close of the Russo-Japanese conflict, thoughts and glances are no more exclusively concentrated upon the far East. The oriental question, which has spread, by reason of the expansion policy of Russia, to the Asiatics, will again, as formerly, be obliged to find solution in the Balkans.

This statement of the Staats Zeitung throws much light on the opinion held, in London that war was narrowly averted in Europe by the Portsmouh settlement. We can now see why Japan withdrew the indemnity demand, and the insistence for the whole of Saghalien; it was, upon England's representation, to escape the terrors that threatened. The lapse of time will show the great victory Japan won directly by her army and navy, and indirectly on behalf of all Europe, and therefore, of mankind by being persuaded to her conduct at Portsmouth.

She had nothing more to fear from Russia; and no single power dared attack her. But now she is liable at any moment to again be called into the field by England's troubles.

The peace of the world will best be preserved by an united commercial Asia. Asia will not force itself upon Europe in the social sense, a contact which, however brought about, as, for instance, by Western intrusion, can result for an indefinite period, only in Western confusion morally, resulting in a vast war finally."

I can see (I think) that Kaneko, Komura and their companions are ashamed of and endeavoring to conceal the great monstrosities of their social system; and in this awakening in them, from their residence and education here, and in Europe, and the admission of Christian missionaries which they do not oppose, will come, slowly perhaps, a new life. The issue between the two contending civilizations of West and East, begun by the Japano-Russian war, and in which both parties are now merely taking a breathing spell, is from my point of view as follows:

The teachings of the "four books of Morals of Confucius," from which Baron Kaneko has quoted (though he does not say so) as the formative factor of moral character in the youth of Japan, inculcates especially, and above all the others of the five relationships of their teaching, that between father and son (not daughter) and son and father.

A son (the male essence is typified in the Mikado as ethereal or heavenly) is taught to aspire to be only what his father was. Hero-worship is taught in boys' schools by the Book of Great Deeds. And reverence for the holy Mikado in the book of Ancestry of the Mikado.

Ancestor worship is therefore an important phase of education of Japanese boys. A "Nero" to a Japanese is representative of success attained, not by peaceful but by bloody ways.

The spirit of Samourai (fighting men) or Bushi (warrior) or Bushido (way of warriors) is instilled in the young boy from his thirteenth year in all the schools. The formation of character as taught in the Japanese boy schools is not moral, beyond the morality of the Samourai, a dissolute class of servants of old daimois who were kept in debauchery to fight the weakling daimios battles. One of these daimios wars, that between the Minamota and Taira families for their representatives as the real Mikado, lasted four centuries, and only terminated when the Minamota men took all the Taira females and made prostitutes of them. From that time till today, even a Samourai may seize any female for his pleasure. These Bushi were lawless feudal fiends, cutthroats, drunkards, debauches, against whose depredations, as voluntary outlaws, and atrocious misdoings down to 1868, to my knowledge, to even 1876, and down to the time of the Satsuma and Saga rebellions of 1879, laws were passed in attempts to control them. Even laws are recorded to protect respectable women and girls against them. There is even a law, especially protecting pregnant

women from their assaults. The tying of the knot of women's "Obi's" in a peculiar way, to distinguish a prostitute from a good woman, was passed, because of the constant assaults of these Samourai.

Licensing of prostitution was due to the debaucheries of the Samourai. Those "two-sworded gentlemen" (fighting men) needed the long sword to chop off a supposed enemy's head, but the little sword was for use in case of necessity to rip his own belly open if he happened to be caught in his devilment, or if he did not succeed in his hellish end Then the morals of Japan called him a "hero;" he had committed "heroic suicide."

The Mikado in 1867 was forced to nationalize these Samourai. He took from every province each daimios fighting men and formed a national army and navy. After they had been drilled for a number of years they cried out, we must fight something; so the emperor found a reason for the Loo-Choo war. After another time, the cry was again assertive, and the China war was the result. Then came the Russian war. But has the spirit been yet appeased? I fear not.

I claim that there is the greatest danger from the 750,000 Japanese troops (nationalized Samourai) in Manchuria when they shall be brought back to peace.

The teaching of the first relation of Confucius makes it imperative that a son shall be only what his father was. A charcoal vendor's son will be a charcoal vendor; a merchant's son will be a merchant; a Samourai's son will be a Samourai.

On the average, each of those 750,000 soldiers, lusty males all of them, will produce five sons, counting the increase in progression by concubinage, which is always practiced, and an increased male birth-rate which always follows war. The children of concubines are all legitimate, and will be trained at school, just as the wife's children are. Hence the next generation will have five times the number of soldiers as there are now. These males must be cared for, catered to in their bloody hero-worshiping appetites, by the present emperor or his successor. Those "heroes' " sons will want to be "heroes" as their fathers were. As soldiers they cannot be kept on a peace footing always. They will sooner or later want to fight some one. Whom? Why some European of course. A foreign war will be the result. A reason will plausibly be found for it. And after it, there will be another one.

The Samourai production will go on in arithmetical progression. Not only will there be five times the number of Samourai in the next generation, but the spirit in the human being will be increased by hero and ancestor worship five fold. This is the danger, we must look to from those 750,000 returning heroes and until the blood-thirst of Japan is satiated, or the devil spirit whipped out of them the civilized world is in danger.

It may be said, that it is unsafe, as a matter of cautious reasoning to assume that the 750,000 returned troops will be so filled with rampant Samourai-ism that they will become a menace to the world.

But it is to be expected that the unfortnate disposition of Saghalein will keep the war spirit alert, and that a class that beats its breast and raises its voice, and from time to time lifts aloft the ensigns in national expressions at home will receive the smiles of all other classes, and thus be encouraged.

In addition to Saghalien, is the most unfortunate alliance with England. There was no nation whose interests were in conflict with the interests of Japan. Except in the presumed matter of advice England has not aided Japan in the late war, nor was she able to aid Japan otherwise. Yet Japan has pledged herself to take up arms in behalf of England at any time (it may be assumed only in Asia), that England is attacked by (or attacks?) any power with whom Japan may at that time be at peace, if England calls for the treaty ally.

It is a matter of surprise that the Japanese were not keen enough to see that there is no quid pro quo for them in sight; and that, so far as the future could, at the time of entering into the agreement be seen the only service that Japan can receive in return will be aid to solve the complexities brought about by the gratuitous consent. Strange that Japan's elder statesmen did not deeply appreciate that Japan needs rest, recuperation; and that such restoration could not be expected when her hands were joined to those of a power that has more enemies than has any other nation on earth.

The proper policy of Japan is to co-operate with the Chinese for their mercantile joint benefit, for the improvement and world exchange of the products of their industries; learning during the next quarter of a century the western methods of production of crops, textiles and machinery and mines—thus preparing for the inevitable strife that the future holds between the East and the West, and which this alliance immediately begins to introduce, for Japan can be called upon at any time to make an enemy of England's enemy.

But the Japanese despise the Chinese; and the Chinese distrust the Japanese, as I have shown and stated. Again, is seen the universal principle of nature—schism in its

broadest sense, and in every sense, the most minute, applying to every feature of life.

As I have said, the Samourai as a class, have been disbanded, in 1867, that is, they have been deprived of their former privileges, which were not grants, but, rather, tolerations and leniencies; they have ceased pretentions as Samourai or distinct class with more or less personal indices of their relation to the whole people. It is to be expected at best that they will pursue their vocations, their avocations; that they are likely to emigrate (by reason of the arithmetical progression of population which I have mentioned) to Manchuria, China, Corea, individually and in small parties, and there engage in such of their callings as can best be—to return to defend their native land when it is assailed.

In other words, to act as other people have acted throughout the history of the world.

The entrance of Japan into the arena of nations, their contests perhaps will break up the intense, touchy national feeling (due to island isolation) that has characterized them, because there will come gradually an individual business and personal comfort that war will disturb, destroy; and with a system of government somewhat representative, as it is, or will be, the voice of protest will be heard strong enough to modify a haste toward war.

But this will take time. It may well be that this enlightened self-interest will yet be applied to the unfortunate alliance with an European power—that has more enemies than any other nation, I repeat, whose contacts of outlying territory are numerous and sensitive spots continually under attrition and in danger of abrasion, a power that now, with the great strength of Germany, the strongest power in Europe, a pugnacious people with a very assertive ruler, needs an ally against that Germany.

All this has come about very suddenly; and it shows how unsafe it is to forecast along other than most general lines. Certainly the editorial in the Staats Zeitung of September 4, is to be borne in mind, for it represents the German inner heart (whatever may be the cause)—sympathy for Russia, not sentimentally, but having in view great designs for the German State.

Any conflict between England and Germany will take a German fleet to Hong Kong; there will Japan be summoned by her treaty ally, and there will she make an enemy of Germany. Such a conflict will necessitate an attack upon Kiachou, the large German holding, and there will Japan have to go.

If England meets Russia at the Balkans and chooses to deem Russia an Asiatic power for the purpose of the hour, there, assumably, must Japan hasten.

Japan has made a mistake at the very outset of her career, from which consqeuences will ever come tumbling in.

Such is the price one pays whether an individual or a nation, for the privilege of being.

Thus will the Samourai, and Samourai-ism find plenty to do; the war spirit will suffer no ennui.

It seems now vain to suppose that the freedom from foreign embroilment which Japan and China have long desired can be obtained. The great universal principle of motion, and of individual commotions, is upon them; and Japan has led the way and holds open the door.

Unless there was a good reason, of which the world at large has not the slightest inkling, Japan has unnecessarily entered upon a tempestuous life, the ship of state will confront violent seas and dangerous rocks and possibly have a fire in the hold.

Thus will the question that, as I understand, has been suggested by Baron Kaneko's paper—the West versus the East, be presented.

Japan's act disintegrates Asia. So clear does it seem that this will be the outcome of the present state of affairs that it appears hardly worth while to consider further, that is, to suppose it does not so come out. At any rate it is not given to human ken to look far ahead as to details.

The island formation of Japan, with an immense ocean on one side, prevents the overrunning of contiguous land—there is no contiguous land. But should the narrow water barriers upon the west be as nothing, there is no region to be invaded by the Japanese that is not wholly Asiatic, readily assimilable.

So, the Western world need not fear any contact with Japan and China, except that which the West invites or imposes. For the great mountain ranges, the high plateaus and barren steppes that separate the Chinese empire from the peninsula of Europe are more inhospitable than the sea at present.

Yet the Western world is about to institute that contact against which the West has always warned. What can be more provocative of an irruption of a modernly armed and educated Asiatic people, than an alliance (with Japan at present) that calls for an Asian power to move to the Balkans or to India? England's alliance with Japan sets the pace for a German or Russian alliance with an Asiatic power—shall it be China? Shall it be China that distrusts Japan? Thus is a conflict already inaugurated

and the proposed erection of bars and barriers between the two, the East and the West, is abandoned. Rather seemingly a war-mix!

Should Samourai-ism obtain control of the policy of the government of Japan, it will then be called patriotism; conservative home influences will be for the while in abeyance. Where will it manifest itself outside of the nation's boundary? To what region can it transport itself except to the continent of Asia? Nowhere Japan has got into an European entanglement, and the yellow peril, as heretofore understood, as a race war problem, has disappeared. The Samourai will be fully occupied in Asia; but, under no circumstances can they interfere with the western civilization.

I am in doubt as to whether we should understand it as surely indicated, that the 750,000 returned warriors will take up the immoralities of the Samourai of fifty years ago, and less.

Is it not true that Japan is so saturated with the old Samourai spirit (Bushido) or lawless blood thirst that the returned troops will expect to be deemed as Samourai by reason of service in the field of war, and that the privileges and leniencies of the former regime shall be restored for them, or, being assumed, shall be tacitly ignored though again active?

If so, what can be done? Is it possible for another crusade to be started in the interest of humanity and higher morality? Who shall be the lion-hearted Richard to lead it, who never shall lose the faith and the courage that will be necessary to sustain his followers in the hours that will come from time to time, far away from homes and families, when the detested foe shall triumph?

If Japan be so sodden in vice, if China be a close second, nothing but time can change them, and God is responsible. What can be done, except to keep a way from them. Yet that is what the western world will not do.

The slow measures of trade intercourse, the education of selected, intelligent individuals for the universities of western civilization will do more than gunpowder. But the process will be slow.

I could not believe until assured by my own senses, that it was so, that all Japan from high Sat-cho to low Samourai, is utterly debased. I could not believe, until assured by my own medical senses, that it was so, that there is no active determined disapproval in Japan and China of the gross vices that prevail among the lower classes and here and there among the highest classes existing not as a matter of immoral individual impulse, but as a deliberately reasoned feature. This being so I unhesitatingly affirm in writing, and stand ready to defend against all comers, that the God of all, if such a god there be, the Creator of that which is, is despicable and murderous beyond power of humanity to express, to worship such a God, is an attitude, the abjectest of all abjections.

Let the paganism of Greece or of Japan, or of China, or the literature of the Hebrews; let the concepts of beauty, purity, grace, tenderness, sympathy, charity, patience, love of parents—wherever to be found, be typified by the highest thought wherever and by whomever written—let the rescript that Baron Kaneko says is placed upon the walls of the school-room, in the place of our Ten Commandments, let the proverbs of Solomon—practical monitions of and for life—let all these be utilized to the exclusion of such a God!

But, after all, will they meet with other than ridicule, or indifference in the civilization of America? Have we the intensity of nature that will imbibe it all as necessary for well-being during our pilgrimage on earth? Why do such noble teachings and precepts of the East exist alongside of open vice most destructive? What is it that makes futile there, as here, the administrations, of the higher minds? Why is it—one asks in vain—that God defeats, ever, that which is desirable; why is it that He is satisfied ever with the mediocre, and that His process is a levelling down and not a levelling up?

When will mankind recognize that the God, the law, Nature, is at the bottom of all the distresses of life, all the hideousnesses of life, of all animal life. When will the individual man recognize that he is a puppet at war with other puppets, and that all are moved by the mechanism of the great scheme.

When will mankind recognize that its helplessness as men, and its struggles for self-preservation, as individuals, is the work of what he calls Omnipotence and Omniscience? And thus reasoning, when will he apply to God, the Creator, the correct reasoning that he applies to a chain—that it is no stronger than its weakest link?

Why will he not see that if God is the cause of all, he at once says in effect that God is no better than the best man, and is as bad as the worst man? And that the question that stares the world in the face is: When will our God reform himself?

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THE EDUCATIONAL INFLUENCE AND SIGNIFICANCE OF SANATORIUMS FOR CASES OF INCIPIENT TUBERCULOSIS.*

GEORGE HOMAN, M. D.

ST. LOUIS.

It is not too sweeping in statement to say that there is not a burying ground in all the land that does not hold the bones of victims of tuberculosis, nor is it wide of the mark to assert that in this country during every hour in twenty-four, month after month and year after year, from twelve to sixteen hearses move toward open graves freighted with the bodies of persons dead of this disease. So to state the case is no flight of fancy or figment of the imagination for its truth is attested by official statistics as sober and colorless as any that can be brought to the support of a scientific fact. These statements of mortality rest for credence upon data long carefully gathered in many places, and more especially on statistics embodied in the United States census report for 1900. By that official return it appears that 110,000 reported deaths from pulmonary tuberculosis occurred in this country for that year.

Professor Osler put the matter in this dramatic fashion in an address delivered at Philadelphia in December, 1905, before the Henry Phipps Institute:

"In more than four hundred homes of this country there are lamentations and woe tonight: Husbands for their wives, wives for their husbands, parents for their children, children for their parents. A mere repetition of yesterday's calamities! and if the ears of your hearts are opened you can hear, as I speak, the beating of the wings of the angel of death hastening to the four hundred appointed for tomorrow. That this appalling sacrifice of life is in large part unnecessary, that it can be diminished, that there is hope even for the poor consumptive—this represents a revulsion of feeling from an attitude of oriental fatalism which is a triumph of modern medicine."

What was the lark-note in the dawn that heralded the break in this lengthened night of despair, disease and death—that foretold the revulsion of which this eloquent teacher so feelingly speaks?

Truly it was the voice of one crying in the wilderness, "Prepare ye the way," for the span of a human generation was passed before the example and teachings of Brehmer in Silesia, as early as 1859, and others abroad, and whose precepts and practice were followed by pioneers in America, led to official action through educational influences exerted on the medical profession and the public.

That this important preliminary work was done by private institutions and the zeal of their managers cannot be gainsaid, the cumulative effect of their example and influence on public and professional thought gradually preparing the ground for and justifying action by State governments when the decision so to do had been finally reached.

Among those who were earliest in this movement Dr. Edward L. Trudeau probably stands foremost, who seeking to save his own life, went to the Adirondack wilderness in 1873, and whose institution at Saranac Lake, modestly begun in 1884 was the forerunner of its kind in this country, and has been potent in emphasizing the educational aspect of its service. Trudeau says on this point in Report of Henry Phipps Institute, address delivered October 31, 1905:

"During the first years of the sanatorium's existence I had much difficulty in filling its few beds, and, on many occasions, it took all my eloquence and persuasive powers to prevent the few patients from deserting on short notice. The education of the public as to the value of sanatorium treatment little by little became apparent, and of late years there has always been a long waiting list" (p. 127).

He remarks further on the educational office and value of such institutions:

"But the lives that the sanatorium has saved and prolonged have not been all that it has accomplished. The hundreds of patients discharged during the past twenty years have been so many missionaries who

*Read at the meeting of February 15, 1906.

have scattered over the land, imparting to others the simple but all important knowledge as to protective measures and hygienic mode of life which they have been so practically taught in the institution. And, besides all this, by affording a scientific demonstration that a fair proportion of tuberculous patients can be cured and restored to lives of usefulness, the sanatorium has had an influence in bringing about a new attitude of hopefulness toward the disease which has inspired the building of similar institutions" (p. 129).

Re-enforcing these observations Osler, in the address before mentioned, says:

"The present crusade against tuberculosis, which is destined to achieve results we little dream of, has three specific objects: First, educational—the instruction of the profession and the people; second, preventive—the promotion of measures which will check the progress of the disease in the community; third, curative—the study of methods by which the progress of the disease in individuals may be arrested or healed. The three are of equal importance . . . The educational aspects of the problem are fundamental" (p. 150).

There can be no doubt that, added to these sanatorium demonstrations of the tractable nature of tuberculosis, the crowning discovery by Koch of the identity of the invading organism hastened the maturing of opinion on this question—the hearty welcome and prompt acceptance of this truth by the medical professional speeding the day when legislators felt themselves warranted in considering public outlays in this direction; and it is to the lasting honor and distinction of Massachusetts that she saw and seized the opportunity, and thus became the first commonwealth of which there is record to devote public moneys to what is essentially an educational undertaking for the overthrow of pulmonary tuberculosis, an anti-consumption school—the law authorizing the State Sanatorium at Rutland, having been passed in 1895.

The enlightening aspect and teaching value of sanatoriums through the people they have helped, especially those of a public character —has always been recognized by physicians connected with them, and this feature has been constantly kept to the fore by the visiting staff of the Rutland institution, they dwelling on it in their first report with marked emphasis.

In drawing attention to and commenting on this feature the present writer in a paper read before the St. Louis Medical Society on September 28, 1902, remarked that while the advantage to the individual patient was undoubted and inestimable, still this benefit was overshadowed by the "immense gain to the common weal secured in having a small army of zealous apostles preaching a propaganda of prevention . . for such teachings go directly and precisely to the places otherwise so difficult to reach, and where they are most needed, namely, the workshops, factories, mills, mines, tenements; in short, wherever human beings are most densely congregated there will these wholesome instructions and salutary admonitions be heard and heeded most."'

This view is strikingly corroborated by the visiting staff, Drs. Bowditch and Clapp, in their report of the Massachusetts Sanatorium for 1904. They say:

"During the past few years an astonishing change has come over the community in regard to the question of tuberculosis. Marked apathy has changed to extraordinay zeal, and, as is often the case, those who have been among the first to advocate certain measures which they know to be of great use, find themselves not infrequently obliged to take a rather conservative position, lest the often extravagant claims made by recent converts shall result only in a reaction of sentiment in the community, and a consequent unreasonable prejudice against methods of treatment which, beyond a shadow of doubt in the minds of those who are best able to judge, are of infinite value to thousands of sufferers, when rationally used."

The deliverance from this pioneer establishment of its kind as to general schooling influences exerted are echoed by the medical managements of other like institutions opened later, and, too, the educational note is stressed in the reports of all the commissions appointed in various states to consider the subject of human tuberculosis.

Another important phase of this question is referred to by the trustees of the Massachusetts sanatorium in their report for 1904, and this relates to the effect of the presence of such an institution on adjoining populations and property values—quite recent experience in the State of New York having shown local prejudices toward the proposed location of such an establishment which went to the length of legal proceedings to defeat the acquisition of a site for such purpose. The trustees say:

"The question is often asked, How does the presence of the sanatorium affect the town of Rutland, in which it is located? The information obtained by inquiry may be valuable. The report tends to show that the town has benefited largely, and has not suffered at all in health. The assessors' books show . . . farms, small homesteads and

village houses have increased in value; they are now at all times in demand. There, is also an unprecedented demand for skilled and unskilled labor."

They then proceed to show that the total valuation of the town since 1895 has increased $186,000, a gain of about 35%, and refer to the decided augmentation in population. They say further:

"The public health has not suffered. . . The town has thus averaged for the last twenty-five years two deaths per year from tuberculosis in a population averaging about 1000. During the last six years, with increased population, the deaths from this cause have been less than before."

In support of the foregoing Trudeau stated in the address already referred to, that ever "since the sanatorium was opened none of our employees or servants has been known to develop consumption," this proving that the measures adopted to guard against infection there were efficacious for the protection of all residing in the institution. Indeed the safest place for a person disposed to tuberculosis is in such a place.

That local prejudice is not everywhere present is shown by the fact stated in a communication received by me last year from the secretary of the Ohio State Board of Health, who mentions that they had received offers of more than one hundred sites for the State sanatorium they were proposing to erect.

From my personal experience in connection with the movement begun several years ago to induce the General Assembly to provide for a sanatorium in this State I am satisfied that the most weighty arguments used were those which most fully recognized the educational value of such an enterprise, and that these prevailed where others would have been unconvincing; in fact in advancing this proposition even to non-medical persons a vista seemed to open to their sight which disclosed the eventual discomfiture of a disease that has burdened the world for centuries, a mortal dominion growing out of a general lack of light and knowledge, but the signs are now most hopeful, for everywhere there is stir and ferment and movement toward multiplying these places of teaching that suggests the coming of a day when the white plague will become as rare as the black death—both disappearing as considerable factors from every truly civilized country.

DISCUSSION.

Dr. Horace W. Soper urged that the incipient cases should be separated from the advanced cases of tuberculosis. At Mt. St. Rose the patients sent there in the incipient stage became so depressed by seeing patients in the later stages that they soon left the hospital in many instances. These two classes of patients should not mingle at all. It was always a very hard matter to get people to leave their homes and enter a sanitarium, and when they did go there and saw these people in the last stages it was discouraging. The most important thing in the prevention of tuberculosis was ventilation. It was a very rare thing to see patients suffering from any form of pulmonary trouble who did not keep themselves in a warm close room. He had had people tell him that they slept in a room with plenty of fresh air, and yet that room was suffocating. The necessity for sleeping in a room with the window down from the top was not appreciated by many.

Dr. Jules M. Brady said that it was the custom to refuse all advanced cases at certain sanitaria where the incipient cases were treated. At the Baden sanitorium near Vienna, it was the rule where the dullness had passed below the first rib to refuse such cases, only the incipient cases being received at this institution. Aside from this, the key to the situation was to have the principles of the disease taught in the schools. A certain time should be set aside for that, say twice a week, and children of twelve years old and over should be taught that this disease was due to a germ, and the simple methods of prevention. If this was done more frequently and thoroughly it would not be long until the number of cases of the disease would be reduced.

Dr. Deutsch gave an account of an experience he had had several years ago in Colorado. He had gone to see a distant relative of his who had been fighting this disease many years. It was now nineteen years since he had entered upon this fight for health and he was now practically well. Dr. Soper's remarks about not classing these incipient cases with those far advanced reminded him of what he had seen at the Oakes Home in Colorado. Certainly no one who entered ever had any regret that he had gone into that institution. From the steps at the entrance to the sterilizers and the painter who painted every room as soon as a patient left it, the place spoke of cleanliness and home comforts. It was surprising to see how those patients enjoyed life. In the summer these patients were scattered over the mountains under the care of a nurse and the physician made the rounds once a week. He had impressed it upon Dr. Deutsch that unless one could make these patients feel that they had something to live for, all of the treatment was of no avail. For that reason he had them in

this beautiful home in the winter, and in the summer kept them out on the mountains. It was surprising in meeting these patients to see how happy they all seemed. It was a question whether a sanitorium built in the city would meet the demands of the advanced or incipient cases, and even then it would be worth while considering an outing place for them in summer.

Dr. F. J. Taussig thought there was here in the city limits a point which was an excellent location for these patients. When one had been at the Female Hospital and looked to the south and southwest over those miles of country without any houses, and at the highest point in the city, he must feel that there was an atmosphere offering the very best opportunities for the care of such patients. It was unfortunate that the city had not appreciated its advantages in this regard. These patients could be cared for half the year at least in small temporary structures in that airy place, and certainly patients would be much more improved than in the "Black Hole of Calcutta," or in the attic of the Female Hospital, where one's head almost touched the ceiling, the worst ventilated room in the building.

Dr. Cannon said that he had recently been informed by a man who ought to know, that there was a plan to establish cottages on those hills near the Female Hospital, and have them heated and run under the care of the Female Hospital. Dr. Snodgrass was much interested in this matter, and if the society would look into this matter it might render the health commissioner much aid.

The President recalled his experience at the City Hospital in 1894. He knew that Drs. Soper, Hinchey and others who were there at that time felt as he has felt; that when the tubercle bacillus was found and a patient sent up to the consumptive division, that that was the last to be seen of that patient. With propriety there might have been written above the door the words: "Leave all hope behind ye who enter here." Next to the syphilitic ward it was the worst in the institution. One day they had had some six or seven deaths in the consumptive division, and it left a very bad impression. They thought so little of the treatment that nothing was said about it. They had a little thymol inhaler and the patients would inhale the fumes and then go back to bed again. Eggs and milk were ordered for the patients, but they seldom got either. Afterward Dr. Behrens had visited the Emergency Hospital. "God forbid that any tuberculosis patient should be sent to that institution," said the speaker, "and to the fourth floor, at that." If that institution should ever take fire nothing on earth would save those patients, there was no chance for them to get out. Dr. Homan's paper had as its object the establishment of an institution for the treatment of tuberculosis patients in this city. This was both very important and very necessary. It would be a school for the people as well as an institution for the care of those unfortunate people who did not know how to help themselves, and who were such a detrimental influence to others. It was a common thing to see two or three phthisis pulmonalis patients in one family. This means of educating them would be of great value. Much could be done for tuberculosis by proper treatment and good advice carefully followed. Such an institution would more than pay for itself in this way, besides giving these people a chance for their lives. And this scheme of Dr. Snodgras' should certainly receive the aid of physicians. It was to be hoped that the buildings would not be of a too temporary character, for if there was the least shadow of an institution built there would never be anything else built as long as these continued to stand. In behalf of the society the speaker thanked Dr. Homan for contributing his very interesting address concerning a matter of which they would hear more in a very short time.

Dr. Green asked what means were used in sanitoria to prevent dissemination of tuberculosis among the employes. He supposed that the patients were provided with the most improved spit cups, etc., but what other means was employed.

Dr. Soper stated that in modern sanitoriums neither carpets nor brooms were allowed. Brooms and feather dusters ought to be abolished. As to the statistics of tuberculosis, the chief source of error lay in the fact that a large number of people had a horror of having consumption in the family and they would ask the physician not to make the certificate read tuberculosis. For this reason many insurance companies had come to look with suspicion upon cases of death from bronchitis, broncho-pneumonia, etc. A large number of cases were recorded in the death certificate as something else. Hence these statistics did not represent nearly all the people dying from tuberculosis.

Dr. Brady stated that there was a law here requiring every case to be reported. In every place where a death had occurred from this disease, or where a tubercular patient had moved from one house to another the apartments should be sterilized. As Dr. Soper

had said, many of these were reported as anemia, bronchitis, etc. If these places were all looked after it would do much to prevent the development of the disease among other members of the family.

Dr. W. C. Mardorf thought that while the trend of the paper was most admirable, the establishment of a sanitorium for the cure of incipient tuberculosis in St. Louis under present conditions was not the most immediate or feasible way of taking up a most important problem. The difficulty of obtaining money for medical institutions had been repeatedly shown, and any such hospital as might be obtainable would accommodate but a very small percentage of the cases of early tuberculosis; these must be large in number, for if it was true that there were ten to fifteen deaths from tuberculosis in St. Louis every day, multiplying this by the number of days average stay in sanatorium per patient would give some little idea of the size of building required. The average patient did not want to go to a tuberculosis hospital anyway, nor was a change of climate always within reach, and for these it was necessary to find some means of help at home, especially in the early stage, when the manifestations of disease were least impressive and treatment was of most avail. The importance of early diagnosis could be overestimated; many of the profession did not realize the comparative ease of curing this disease in its early stages, and the little value of drugs in its treatment. The number of patients being sent away only to die who might have been as well or better treated at home was appalling. Fresh air was a necessity, but most houses were so built that they did not permit fresh air to enter without a draught. The architects should be impressed with this thing, and the board of health could do good work in having incorporated in the building laws provision for proper ventilation. Not enough stress was laid upon the value of fresh air and suitable diet, and the inadequacy of drugs.

Dr. Homan, in reply to the question asked by Dr. Green, said that the prevention of the communication of the disease lay in the proper care of and prompt destruction of the sputum. That summed up the whole thing.

Dr. Green added that in a sanitorium, of course, it was possible to enforce an ideal arrangement for the disposal of the sputum and, as Dr. Soper had suggested, it was advisable to do away with sweeping, instead, mopping all the floors with a damp cloth. He had asked this question merely because he was desirous of knowing what methods were observed at Saranac Lake in preventing the occurrence of the disease among the employes.

Dr. Homan, in closing, agreed with Dr. Soper as to the danger that lay in sweeping. He thought the modern broom and feather duster the deadliest weapons that could be brought to bear against human life. It was not in the poorer districts that consumption was contracted, but in the first class hotels, clubs and office buildings with acres of carpeting, where with broom and the duster the employes kept the germs moving from place to place. This was where these employes contracted the disease. It was true they lived in the poorer districts, but it was in such buildings that they acquired the infection. So far as the new city institution was concerned, he had suggested that some twelve years ago, while serving as health commissioner, and he was glad to see that it was to materialize at last. This would probably be for the convalescents or the more advanced cases. For early cases the high hills of the Meramac are probably as good or better for St. Louis people than the Adirondacks or Colorado, as this was a home climate. In this connection Dr. Homan stated that it was planned to lay the corner stone of the new State institution for incipient consumptives at Mt. Vernon about the 24th of May. The profession should go down there by the train load, not only to give countenance and encouragement to the movement and the men having it in charge, but to show the people of the State and the members of the legislature that their support was still needed, morally and financially.

Dr. Green referred to a pamphlet he had received from the new St. Regis Hotel, in New York, in which there was a very elaborate system of ventilation, and also a means of removing dust and debris. The ventilating system consisted in drawing in fresh air through cheese cloth screens by suction, the air then being passed over heated coils and carried to the rooms. Furthermore, a system of tubes was provided through which the dust of the rooms could be sucked up by a suction pump and conveyed to a receptacle in the basement. Some such method as that, where the fresh air was filtered through cheese cloth and the cleaning of the rooms done by suction might well be imitated in buildings of the future.

NEVER advise an elastic stocking in cases of varicose veins where thrombosis exists. The pressure may detach a part or whole of of the thrombosis, propelling it into the general circulation.

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EDITORIAL

Medical Aspects of the Proposed Bond Issue.

THE coming election on the question of bonding St. Louis for various improvements is in several points of such interest to our profession and our patients that it would seem that every physician should support and urge support of all points of the proposition, but especially of those relating to hospital construction and reconstruction, sewers and parks.

The following report bearing on this subject was presented at the meeting of the St. Louis Medical Society, May 12th, and unanimously adopted:

The Committee on General Welfare wishes to call attention of the society to the fact that an election will be held on Tuesday the 12th day of June, 1906, when ordinance No. 22,366 will be submitted to the voters. This ordinance provides for an issue of bonds of the city of St. Louis not to exceed $11,200,000.00. Nine propositions are to be voted on.

1. $3,500,000 for a free bridge.

2. $800,000 for the construction, reconstruction, and extension of hospitals, and the purchase of sites for the same.

3. $1,000,000 for the construction, reconstruction, and extension of and an addition to the Insane Asylum, and for the purchase of sites for the same.

4. $230,000 for the Fire Department.

5. $2,000,000 for buildings for Jail, Police and Health Departments and Police Courts.

6. 1,000,000 for bridges and viaducts.

7. $500,000 for King's Highway improvement and extension.

8. $1,500,000 for construction and extension of sewers.

9. $670,000 for purchase, construction and laying out of parks.

Each one of these propositions is to be voted on separately, and in order for a proposition to carry, two-thirds of the voters of the city of St. Louis voting thereon must assent thereto.

The medical profession is particularly interested in propositions 2 and 3, and your committee wishes to suggest that the members of this society exert themselves in behalf of these measures.

No class of citizens are in a position to know as much as the medical profession about the crying needs provided for in propositions 2 and 3. Our opinion should be appreciated by the people, but if not, this committee feels it to be a duty of this society to publicly express itself. We therefore suggest that at the proper time, an appeal might be made to the voters of St. Louis in behalf of these two measures; this appeal to be made in an open letter, published in not less than two of the daily papers, and signed the St. Louis Medical Society of Missouri, with the names of its President and Secretary. This committee knows of no member of this society better qualified to prepare such a letter than our President, and therefore suggests that this duty be entrusted to him.

Last year a committee was appointed to effect a non-partisian ward organization of the physicians of the city. The purpose of this organization was to render more effective the efforts of our profession in furthering those measures conducive to the health and general welfare of the public. If this organization is in a condition to carry out the purpose for which it was created, this committee would recommend to its consideration the election of June 12.

Antitoxin for the Poor.

We are in receipt of the following letters from Dr. H. J. Scherck, Chief Dispensary Physician of the City Health Department:

The enclosed copy of a communication addressed by the health commissioner to me is of such public interest both to citizens and to the medical profession that I take this opportunity of sending it to you.

There are a great number of people who cannot afford to purchase antitoxin when any of their family are stricken with diphtheria. When assurances are given that people are too poor to purchase antitoxin, and I am notified, a physician of my staff will be immediately sent to the address and he will administer the antitoxin, with the assistance of the attending physician.

Antitoxin will not be distributed to physicians generally for two principal reasons:

1st. The Health Department desires to know where each dose of antitoxin is used and to prevent the possible use of it in patients whose family can afford to purchase same.

2d. Inasmuch as antitoxin is issued by the Health Department the responsibility of its administration must rest with the physicians connected with the Health Department.

The antitoxin administered will be purchased from one of the best and most reliable Eastern manufacturers, and a certificate will accompany it certifying to its purity and freedom from any contamination.

A history will be kept of each case, which will serve to prove the efficacy of this treatment as well as its value as a preventive among those children who are directly exposed to cases of the disease.

Very truly yours,
H. J. SCHERCK,
Chief Dispensary Physician.

ST. LOUIS, MO., May 15th, 1906.

DR. H. J. SCHERCK,
Chief Dispensary Physician.

Dear Sir:—In the annual appropriation for the fiscal year 1906-1907 there is a fund for the purchase of diphtheria antitoxin; in order that this fund may be used to the best advantage the following suggestions occur to me as being of importance in the proper handling of this work:

1st. To prepare a blank form in the nature of a certificate to be signed by the attending physician to the effect that he certifies on honor that the patient or his family is financially unable to purchase antitoxin and is a fit subject for charity.

2d. Upon the receipt of this certificate you are to send a physician connected with your staff to the home of the patient to administer the antitoxin as often as it becomes necessary.

3d. That where the patient is surrounded by other children that an immunizing dose shall be administered to those who have come in contact with the case.

4th. To prepare a blank history form, on which is to be recorded a personal and clinical history of the case and the various points connected with it, together with a statement of the result obtained from the treatment of the case, certified to by the physician of your staff in attendance on the case. These histories to be kept properly filed and to serve as a basis of statistics in order to demonstrate the advisability of continuing this work.

The details of management and supervision of this work to be under your direction.

Very truly yours,
(Signed) H. WHEELER BOND,
Health Commissioner.

TRI-STATE MEDICAL SOCIETY OF IOWA, ILLINOIS AND MISSOURI.—This association will hold its fourteenth annual meeting in Galesburg, Ill., on June 26 and 27, under the presidency of Dr. Wallace C. Abbott, of Chicago. The secretary, Dr. C. F. Wahrer, of Ft. Madison, has prepared an excellent program for the occasion, comprising fifty-eight papers, including the president's address. The other officers of the society are as follows: First vice-president, Dr. J. W. Hanna, Winfield, Ia.; second vice-president, Dr. H. B. Young, Burlington, Ia.; treasurer, Dr. Emory Lanphear, St Louis, Mo.

MEETING OF INSURANCE EXAMINERS.—The seventeenth annual meeting of the American Association of Life Insurance Examining Surgeons will be held at Hotel Thorndike, Boston, Mass., Monday, June 4th, 1906. A most interesting program has been arranged and the meeting will be one of exceptional interest from all points of view. Those going to the meeting of the A.M.A. will do well to arrange their itinerary to reach Boston in time for the session of this Association. Following are the officers for 1905-1906: President—Henry Wells Dewey, Tacoma, Wash.; Vice-President—William Moore, New York; Vice-President—A. S. McDaniel, San Antonio, Texas; Vice-President—M. A Robinson, Victor, Col.; Vice-President—William F. Amos, Portland, Ore.; Resident Secy.—Mark N. Richardson, Boston; Recording Secy—J. Carlisle DeVries, New York; Secy.-Treas.—John Guy Monihan, New York.

TRIP TO BOSTON.—A number of excursion parties are being organized in the West to attend the meeting of the American Medical Association in Boston, June 5 to 8. The general plan of the various parties is to charter special cars at principal points and join hands in Chicago on June 1st, where arrangments have been perfected for a special train via the Grand Trunk Ry., to be known as the "Missouri Valley Special." This train will stop at Niagara Falls and Toronto, and from Kingston to Montreal, the trip down the St. Lawrence will be by boat, through the famous Thousand Islands. The Missouri Valley party will arrive in Boston morning of June 4 (one day ahead of the other delegations) affording members an opportunity to see Boston, attend the auxiliary meetings and get located before the rush. Members desiring to join this party at St. Louis should communicate at once with Dr. T. A. Hopkins, Century Building. Those who are located further west should make reservations through the secretary, Dr. Chas. Wood Fassett, St. Joseph, Mo.

INTERNAL MEDICINE.

O. E. LADEMANN, M. D.

Ehrlich's Diazo-Reaction in Pulmonary Tuberculosis.—Junker (Beitr. zur Klinik der Tuberculosa, Bd. V, Heft 1, 1906) analyzed the urine of two hunderd consumptives as often as eight to thirty-five times. A positive reaction occurred in only the second and third stages of the disease. A negative reaction does not warrant the conclusion of a favorable prognosis, while a continued diazo is always significant of an evil omen, as may well be inferred from the clinical characteristics in general. Junker often observed a positive reaction occurring during the course of some intercurrent affection, as influenza, intestinal disturbances, etc.; thus it may be said that transitory reactions are of no prognostic significance. Consumptive individuals with a continued positive diazo-reaction apparently seemed to respond less favorably to tuberculin therapy than those otherwise in an advance stage.

Anesthetics and Renal Activity.—Thompson's (British Med. Jour., March 17, 1906) results of an experimental investigation into the effects of prolonged chloroform anesthesia are summarized as follows: 1. The volume of urine secreted by the kidney is, as a rule, affected during chloroform narcosis in two ways: In the early stages, when the anesthesia is light, the quantity is frequently increased. During full anesthesia the secretion is always diminished, and may be suppressed. 2. The after affect is invariably a great increase, which in certain periods may reach to four times the normal volume for the same period of time. The maximum outflow occurs about three hours after removal of the anesthetic. 3. The total excretion of nitrogen is, as a rule, greatly reduced—more so than the quantity of urine. The average taken from experiments with diminished urine volume show that during the anesthetic period the excretion of nitrogen fell to 18% of the normal, whereas the quantity of urine in the same series fell only to 35% of that amount. In the minority of the experiments with increased urine volume the total nitrogen per period was also increased, but to a much less extent than the volume of urine in the same experiments. 4. The urine secreted during chloroform anesthesia is almost invariably more dilute (contains less nitrogen per cent) than the normal urine. This holds good even when the volume of urine is diminished, hence it is inferred that chloroform affects not only the blood flow through the glomerulus, but also the secretion of nitrogenous solids into the tubules, and the latter even more than the former. The result, therefore, favors the theory of urinary secretion advanced by Bowman. 5. There is a general but not accurate correspondence between urine outflow, kidney volume, and blood pressure. The relationship between the first and second is closer than the first and third. A state of almost complete suppression may coexist with a comparatively high blood pressure. 6. In prolonged narcosis, with marked diminution of urine volume, there is a considerable exudation into the renal tubules of leucocytes, which subsequently escape with the urine. The condition is probably produced by more or less vascular stasis in the glomerular vessels. 7. The excretion of chlorides is much increased both during and after chloroform narcosis. In the fourth period after removal of the anesthetic the amount may be ten times the normal quantity in the urine of the dog. 8. Albumin appears in a small proportion of experiments after chloroform inhalation. 9. Reducing substances other than glucose are almost invariable increased. The nature of the reducing substance has not been definitely determined.

Belladonna Poisoning Due to Belladonna Plasters.—Doland (Am. Jour. of the Med. Scs., April, 1906) reports three cases of belladonna intoxication following the application of belladonna plasters. The symptoms in each case were typical. In one case the toxic symptoms evidenced themselves two hours after the application of a small belladonna plaster applied to the chest, while the symptoms in the other two cases did not appear until a few days after.

Recurrent Motorocular Paralysis as a Complication of Typhoid.—Jockmann (Deutsche med. Wochenschrift, No. 16, 1906) defines periodical paralysis of the third nerve as a manifestation making its first appearance in infancy or early life, limited to the motorocular associated with headache and vomiting, and recurring at irregular intervals (Möbius). He next discusses the theoretical aspects regarding the nature of the condition, and reports in detail an interesting case as follows: A young man, 19 years old, with a negative family history. His first attack appearing at the age of eight years with headache, vomiting and a paralysis of the left aculomotor nerve. During the ensuing years attacks of migraine occurred at frequent intervals, three of these attacks with a concomitant motor ocular paralysis, the last occurring during an attack of typhoid fever. It is hardly probable that the simultaneous occurrence of typhoid fever can be regarded as a mere coincidence. It is more likely that the typhoid

infection, in lowering the vitality, acted as an exciting factor in a predisposed individual. The prolonged existence of the paralysis in this attack (three months) is strongly suggestive of the late presumption, while in the first attack the paralysis lasted eight days, and only four days in the second and third. The case in question presented all the characteristics of a periodic oculomotor paralysis in the sense of Möbius; the attacks beginning in childhood and were of a longer duration than the ordinary attacks of migraine, a complete absence of visual aura, nothing suggestive of anything hereditary, and a non-occurrence of migraine in the other members of the family. Somewhat out of the ordinary were the frequent rudimentary attacks without any paralysis, the latter being in evidence but four times. Noteworthy is the fact that the attacks were limited to the left side, quite unlike ordinary migraine, which is apt to shift from one side to the other. Jockmann regards the occurrence of the paralysis in the first attack as a significant differentiating feature from the ordinary migraine, as those cases in which a motorocular paralysis followed hemicrania did so only after severe and repeated attacks, and sometimes years after its existence.

What Causes the Pylorus to Relax?—Benedict (N. Y. Med. Jour., April, 7, 1906) offers the following summary as his objections to the acid theory of relaxation and closure of the pylorus: 1. The local changes in reaction are physiologically inevitable. 2. The relative acidity of the chyme is not diminished by the passage outward of a small portion, yet the pylorus does not remain patulous. 3. While this failure of a continuous relaxation of the pylorus may be explained by distal acidity, it is in close analogy with the action of other alimentary sphincters, which close without any exciting reflex that can be ascribed to differences in clinical reaction. 4. Fully half the stomach contents normally escape before it is conceivable that any great proportion of hydrochloric acid is present. 5. Clinical experiences with dietaries shows that other things being equal, meats that call for considerable hydrochloric acid secretion usually remain in the stomach longer than those which do not. 6. Clinical experience with stomach contents proves conclusively that deviation from the normal standard of hydrochloric acid secretion produces just the opposite effect to that which would be expected if this were the cause of pyloric relaxation. Even in achylia gastrica, there is no necessary abnormality of pyloric function, certainly not in the direction of retention.

Di-methyl-amido-azo-Benzol as an Indicator for Free Hydrochloric Acid in Gastric Analysis.—Elmer (Jour. A. M. A., April 14, 1906) speaks of the sources of error observed in using di-methyl-amido-azo-benzol as an indicator for the quantitative determination of free hydrochloric acid in the gastric contents. The principal difficulty with this indicator is not in its lack of delicacy, but the fact that certain organic acids found in the gastric contents, when in proper concentration, will give the same color change as free hydrochloric acid. Of these, lactic acid is the only one occurring in sufficient amount to interfere with the reaction. Elmer proposes the following remedy: The test meal is to be practically free from lactic acid, and for this purpose one consisting of one shredded wheat biscuit and 300 cc. of water, administered after a fast of eight to twelve hours, and removed from three-fourths to one hour, meet all indications. Should lactic acid be present in the expressed gastric contents the error may be practically eliminated by sufficiently diluting the contents. By repeated trials the author determined one part in fifteen hundred the smallest amount of lactic acid that would respond to the di-methyl-amido-azo-benzol test. The highest dilution of lactic acid which would give a characteristic Kelling reaction was in the proportion of one to twenty-two thousand, or approximately fifteen times the dilution required to give the di-methyl-amido-azo-benzol test.

Attitude in Angina Pectoris.—Minervini (Riforma Medica, Nos. 46 and 47, 1905) describes nine cases of angina pectoris to illustrate the position assumed during an attack. This peculiar attitude consists in throwing the head backwards and straightening the body, somewhat simulating the attitude of opisthotonus, the arms hang down, or one may be placed over the region of the heart. Patients invariably seek such a position when an attack manifests itself, regardless of the posture prior to the attack. If standing he leans against a wall throwing his head backwards, if possible; if seated he leans his head over the back of the chair. This attitude sign, as the author styles it, is an apparent diagnostic index of stenocardia and is in direct contrast to asthma and kindred conditions, when the patient leans forward in order to have as free access to the air as possible. Minervini regards this characteristic posture as an instinctive act on part of the individual, who seemingly aims to get away from the heart. By means of the forced backward flexion of the head the venous flow in the neck is hindered, and in consequence thereof there is an increased intracranial pressure

with the affect of paralyzing the vasomotor centers. This increased, beneficial pressure may be momentarily augmented by amyl nitrite or morphin, thus terminating the attack. Bodily extension likewise increases the blood pressure and the subsequent decrease in the pulse rate, regulating the coronary blood supply, also acts favorably on the attack. The differential diagnosis between stenocardia and uremic dyspnea is readily identified by the posture; in the former, fear, bodily immobility and retroversion prevail, while in the latter, the patient is in a state of agitation and retroversion, to any degree, is always absent. In the respiratory forms of neuroses, antiversion of the body is the rule. In attacks of laryngeal stenosis the patient suddenly assumes the sitting position, rushes out of bed, tears away any interfering clothing from the body and seeks support to hold himself erect.

The Diagnostic Value of Leucocytes.—Grünbaum (Practitioner, Dec., 1905) believes that an accurate leucocyte count is a valuable index in determining the presence of pus in the body. A large increase in the polymorphonuclear neutrophiles, together with a glycogen reaction, an increase in the blood-plates and in the fibrin of the blood is strongly indicative of pus in the economy. When counts are made at short intervals (every four hours) and the leucocytes found to be on the increase the assumption that the inflammation is extending is justifiable. A negative blood examination, on the other hand, does not warrant the exclusion of pus. A palpable gastric tumor of obscure nature with a pronounced digestive leucocytosis is a strong evidence against malignancy, pointing to an inflammatory trouble, although small cancers of the stomach are frequently associated with a considerable digestive leucocytosis. The presence of choline in the blood is an important symptom in the differential diagnosis between hysteria and disseminating spinal sclerosis, as this substance is only found when there is an active process of nerve degeneration going on in the body.

The Diagnosis of Renal Calculus.—G. L. Hunner, Baltimore (Jour. A.M. A., March 24), remarks that few diseases present more protean symptoms and simulate so varied an array of other maladies as stone in the kidney. Large calculi may exist in and cause destruction of both kidneys without marked symptoms, while minute calculi may give rise to agonizing pains. The more common kidney disease to be considered in the diagnosis of calculus are tuberculosis, pyelitis, pyelonephritis and pyonephrosis from the ordinary pus-producing infections, tumor and intermittent hydronephrosis. Each of these is noticed separately. The only positive evidence of renal tuberculosis is the finding of the tubercle bacillus in the urine or producing the disease in animals by inoculation with the diseased urine or tissues. Other symptoms are all more or less unreliable. The differential stain must always be employed in diagnosing tuberculosis from the finding of acid fast bacilli in the urine, as is shown by a case here reported. It may be impossible to diagnose pyelitis, pyelonephritis or pyonephrosis from an infected nephrolithiasis except by operation, nor is it easy to differentiate between calculus and tumor, and here also the chief dependence is on the urinary examination. A movable kidney and kinking of the ureter may cause attacks closely simulating those of calculus, but the enlarged and movable kidney during the attack and the relief of pain and increased flow of urine on its return to normal size will aid the diagnosis. In this connection, Hunner mentions the unaccountable renal hemorrhages known as idiopathic hematuria or renal epistaxis, and says there is, he believes, a tendency nowadays to connect these with the chronic interstitial form of Bright's disease. The diseases of neighboring organs noticed as having to the differentiated from calculus of the kidney are gallstones, appendicitis, intestinal obstruction, pancreatic calculus and Henoch's purpura and angio-neurotic edema; cases are reported illustrating the difficulties sometimes encountered. The history of the case, examination of the urine, etc., are generally the main dependence in the differentiation. Kelly's method, injecting the kidney pelvis with a bland solution, is mentioned as one of the best diagnostic aids in case of suspected gallstones. In conclusion he refers to Israel's saying that in diagnosing other than typical cases, one must, first of all, divest himself of the schematic picture so often presented in the text-books.

Doctor, you should investigate the plan of the Physicians Defense Company of Fort Wayne, Indiana, for the successful prevention and defense of the malpractice suit. The records of the company show that they have prevented all annoyance in over 75% of all the suits threatened against their contract holders. The company has an admirable history and has dealt fairly and honestly with the medical profession during the seven years of its existence. A postal addressed to the Physicians Defense Company, Fort Wayne, Indiana, will bring full information.

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

Stated meeting held March 5, 1906. The President, Dr. J. J. MacPhee, in the chair.

PARTIAL GASTROECTOMY FOR CARCINOMA.

This patient was presented by Dr. J. I. Edgerton. G.C.H.; male; 41 years of age. Father living and in good health at 78; mother died of stomach trouble, probably cancer, at 58 years of age. Patient had malaria severely 25 years ago, but has had no recurrences. He indulges moderately in tea, coffee and alcohol, and smokes regularly from fifteen to twenty cigarettes daily. For the past thirteen years he suffered with heartburn, which had been more constant during the past two years, during which time he also suffered from nausea and pain in the epigastrium after eating. During the last few months he had burning pains after eating; was hungry all the time, but afraid to satisfy his hunger, for when he took solid food it remained in the stomach for an hour or so, and then was vomited. On one occasion last winter he vomited some mucous streaked with blood. He began washing out the stomach twice a day on October 4th and brought up greenish clumps of mucous resembling moss. There was no vertigo. His bowels were constipated, and he lost about twenty-five pounds in weight during the last few months.

On November 27, 1905, the stomach contents contained free hydrochloric acid; moderate reaction; odor butyric. A mass could be felt over the region of the pylorus, and operation was advised and accepted by the patient. The usual preparation of cleansing the stomach by lavage was performed, and in the operation Mayo's technic was followed. The abdomen was opened near the median line and the gastric artery was doubled, ligated and divided near the cardiac. The gastrohepatic omentum was also doubled and ligated close to the liver, leaving most of its structure attached to the stomach. The superior pyloric artery treated in the same manner, and the upper inch or more of the duodenum freed. With the fingers as a guide beneath the pylorus in the lesser cavity of the peritoneum, the right gastroduodenal artery was ligated. The gastrocolic omentum was cut distal to the glands and vessels, up to an appropriate point on the greater curvature and the left gastroepiploic vessels were ligated.

With a running suture of catgut through the seared stump the end of the duodenum was closed. The proximal end of stomach was double clamped along the Miculicz-Hartman line, and divided with a cautery one-fourth inch projection. Then gastrojejunostomy was done.

The tumor was found to occupy the pyloric end of the stomach, extending around the whole circumference. No adhesions were present. There was a delay in finding the nearest point of jejunum that could be brought to the stomach wall, and in taking great pains to suture the opening in the mesocolon so as to prevent hernia into the lesser cavity of the peritoneum.

His temperature at no time following the operation was above 96. degrees F., and there has been no vomiting since operation. He took water in eight hours and liquid nourishment in twenty-four. His bowels were moved by enemas during the first week, but three was no distension; in fact, no more discomfort than from an ordinary exploratory laparotomy alone. The man has gained about twenty-five pounds in weight, and is at his regular employment again with no discomfort whatever referred to his stomach.

CASE OF MORPHINE POISONING.

The report of this case was presented by Dr. D. A. Sinclair. The patient was 63 years of age, weighed 180 pounds, was 5 feet 6 inches in height, full blooded, with marked organic heart disease. He had been coming to the speaker's office for the past two or three years suffering from alcoholism. He was a periodic drinker, and when first seen, two or three years ago, had been treated along the regular lines for such a condition. He informed the speaker that he had been in the habit of receiving injections of morphine from previous doctors and that was the only treatment that did him any good. Accordingly one-fourth of a grain of morphine was injected, which the patient reported at the next visit was of no benefit whatever, stating that it was, he knew, a very small amount—nothing like what he had been used to getting. The dose of morphine was very carefully increased to one-half grain without any effect, and finally, at the earnest solicitation of the patient and his assurances that he could stand the morphine, the dose was increased to one grain. This injection bore out his statements as to his previous experiences and "just about steadied him," without producing any thing but a very short sleep. His subsequent periodic sprees were treated along the same lines, from three-fourths to one grain being used as an injection. It became so much a matter of course to inject this patient and see no unto-

war effects whatsoever that there was no hesitation on the part of the speaker about giving him a grain of morphine two or three times day according to the exigencies of the occasion. Between the sprees the man, who was of more than average intelligence, not only abstained from alcohol, but did not have the slightest desire for morphine or any other drug.

The treatment detailed above was carried out until the last spree, about a month ago. On this occasion he presented himself, intoxicated, but retaining all his faculties, and begged for an injection of morphine, saying that he would only be put "on the ragged edge," as he expressed it, if he received the usual dose. He stated that he had taken as many as three grains of morphine without any bad effects, but this statement he afterward denied. He had a very important meeting for the next day, and therefore was desirous of securing a good night's rest. One and one-half grains of morphine sulphate were injected into his left arm. In about half an hour the speaker was called to him hurriedly, and found him in a much stupefied condition.

This was about 8 p.m. a small dose of cocain was injected and the speaker left, returning about 9 o'clock, when the patient was beathing slowly, about five to six a minute He was walked up and down until about 11 o'clock, at which time his respirations had diminished to one in two minutes. Up to this time there had been injected hypodermatically 3-5 of a grain of cocain, 4-150 of atropine sulphate, 4-30 of strychnine and 4-10 of nitroglycerine. He had also been given about a quart of strong, black coffee.

The situation being desperate, at the request of the man's family 1-12 of apomorphine sulphate was injected as an emetic and was effectual in about one-half a minute. The patient went steadily into a deep coma, became very blue and was apparently dying. Artificial respiration and the administration of oxygen were then resorted to and the tongue pulled forward with artery forceps. At 1:30 p.m. he began breathing at the rate of about four a minute. About a quart of black coffee was given as an enema, and at about 3 a.m. he was breathing about ten times a minute and was conscious.

The oxygen and artificial respiration, together with the cocain, probably saved the man's life. Two lessons should be learned from this case: (1) not to be importuned into giving any patient a large dose of morphine, even though he is used to it; and (2) not to abandon hope or relax one's efforts, even when the patient is apparently beyond hope, as this case shows that even in apparently fatal cases life may be saved.

Dr. R. H. M. Dawbarn opened the discussion of this case which, he said, recalled to his mind a case of morphine poisoning which occurred when he was interne at the Nursery and Child's Hospital. He placed the patient on his back and administered atropine (the first dose of which dilated the tubes) until, from morphine poisoning, the patient developed a case of atropine poisoning. Life was saved by artificial respiration, which was kept up for eight hours by the speaker and his assistant, each taking two-minute turns. Walking the patient up and down was tried, but the exertion seemed only to make the heart weaker. If he were to criticise the treatment of the case under discussion it would be the giving of depressing narcotics, as after vomiting from an overdose of morphine the patient usually collapsed.

Dr. Maurice Packard said that in a series of experiments in which he had been interested, which were being conducted by Drs. Bodine and Jeffries, they were trying to find out from guinea pigs how much morphine would act as an antidote for a given injection of cocain, acting upon the principle that cocain is a physioloigcal antidote for morphine. Previously atropine had been used for this purpose, but atropine and morphine acted similarly, in that both had a tendency to depress the smooth muscle fibres as well as secretion, while, on the other hand, cocain stimulates the smooth muscle fibres and increases secretion, as is shown by the druling at the mouth and the frequency of urination. The best possible treatment, he thought, was the stomach tube. After using it once, however, it must be used every half hour, for the mucous membrane of the stomach will repeatedly secrete morphine. With the stomach tube and the proper use of cocain, most of these cases will end in recovery.

The paper of the evening was read by Dr. E. L. Keyes, Jr., and was entitled

RENAL COLIC.

He said, in part renal colic is usually considered a symptom of kidney stone; but it is not absolutely pathognomic of stone, nor are the position and character of the colic pains always an infallible index of the position of the stone. Indeed, so misleading is renal colic in a certain few cases, and yet so rarely is it a symptom of anything but stone, that think it by no means waste of energy t study attentively some of the cases whic have come under my observation, and i

which renal colic has been a misleading and often a confusing symptom.

The late Dr. Bryson once formulated in a tentative way the theory that stone in the pelvis of the kidney causes pain in the loin radiating down the ureter, while stone at the lower end of the ureter causes frequent and painful urination and pain in the pelvis. This distinction holds true in the great majority of cases; yet I have seen one case that was a striking exception to this rule, in that the only pain suffered from was frequent and painful urination, although he had but one stone, and that lay in the pelvis of his kidney.

The first patient, a lean asthmatic man, 63 years old, complained of frequent urination. Sixteen years ago he applied for insurance was refused on account of albuminuria. He consulted a surgeon, who stated that he had a surgical inflammation of the kidney. Except for the passage of two calculi from the right kidney, eight and five years ago respectively, and except that he had to rise once or twice at night to empty his bladder, there were no symptoms until about a year ago, when his urination became more frequent, and he consulted an eminent urologist who began and has since continued treating him for chronic cystitis attributed to prostatic hypertrophy. His symptoms have grown gradually worse.

Examination showed the right kidney to be readily palpable, somewhat large and tender; the left kidney could just be felt, but was not tender. The urine was hazy with pus; specific gravity 1016; albumin 1% by weight; various casts of many kinds; many red blood cells; a total excretion of from 25 to 30 ounces; the bladder capacity was 8½ ounces. The prostate was not enlarged; there was no residual urine. X-ray examination revealed a shadow in the region of the right kidney pelvis, but for various reasons the operation was postponed for eighteen months, when the patient's condition was so unsatisfactory that it became imperative.

Upon opening the right kidney, an oxalate stone was found fitting in the upper end of the ureter and was removed through an incision in the the kidney pelvis. The kidney itself was considerably dilated and covered with small cysts which contained serous bloody and sero-purulent fluid. It was suspected, because of the nature of the symptoms, that there was a stone in the ureter, But careful search failed to reveal one. After operation, instead of passing urine constantly, as he had done heretofore, he had to be catheterized until the second day, when he began to urinate at intervals of from two to four hours. The secretion of urine remained low, and, finally, at the end of three and a half weeks, the patient died from asthenia and failure of kidney function.

It is noteworthy that in the case we were able to arrive at a diagnosis with the aid of an X-ray photograph, while the practitioner who had previously treated it had failed to make the diagnosis, because he had not employed this expedient.

In contrast to the above case, in which a patient with stone suffered from a pain that did not resemble renal colic, the second case shows the brilliant contrast of a patient with renal colic, but without stone.

The patient, 58 years of age, complained of repeated attacks of renal colic. He never passed blood, never had any anuria or bladder symptoms, although since the first attack he had urinated twice at night and every three hours by day. No lumbar tenderness could be evoked by palpation, nor was it possible to feel either kidney. X-ray photographs showed small sclerotic kidneys, but no shadow suggestive of stone. Examination of urine showed many pus cells, but no bacteria. Macroscopically there was no pus and very few blood cells. He was given an alkaline mixture, advised to drink very freely of water and to exercise to the limit of toleration; and I believe that in January, 1906, he had no further renal colic.

A detailed history was presented of a patient who suffered from most violent attacks of renal colic brought on by digestive causes. A carefully restricted diet, much exercise and water and the administration of betanaphthol, bismuth and salol caused a cessation of these attacks.

In further contrast to this case was case V, in which the colic caused by digestive disturbance was intestinal and not renal, although the pain was precisely that of renal colic.

The last history presented by the speaker was an example of a class of cases which he considered very important. They are relatively infrequent and cause objective symptoms absolutely characteristic of renal stone; yet a careful examination will reveal the fact that they suffer from nothing more than seminal vesiculitis.

LUMBAGO.—The Medical Review of Reviews recommends the following as a local application:

℞ Tinct. iodine..... 2 drams
Tinct. aconite root..... 3 drams
Spts. chloroform..... 4 drams
Soap liniment, q. s..... 3 ounces

M. Sig.: Apply locally several times daily.—Prescription.

THE MEDICAL FORTNIGHTLY

A Cosmopolitan Biweekly for the General Practitioner

The Medical Fortnightly is devoted to the progress of the Practice and Science of Medicine and Surgery. Its aim is to present topics of interest and importance to physicians, and to this end, in addition to a well-selected corps of Department Editors, it has secured correspondents in the leading medical centers of Europe and America. Contributions of a scientific nature, and original in character, solicited. News of Societies, and of interesting medical topics, cordially invited.

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MEDICAL MISCELLANY

THE BOSTON SESSION OF THE AMERICAN MEDICAL ASSOCIATION.—It would seem that the medical profession of Boston intends to have the approaching session of the American Medical Association one long to be remembered for the high grade of its scientific proceedings, the cordiality of its entertainments and the elaborateness of the clinical and exhibition features. The Journal of the American Medical Association, May 5, devotes over 20 pages to the session, giving railroad rates, lists of hotels, meeting places, headquarters, lists of entertainments, excursions and programs, etc. The preliminary programs of the twelve sessions show that the scientific proceedings are to be of great value, and that many distinguished foreigners are to be among the speakers.

EFFECT OF PROPRIETARY LITERATURE ON MEDICAL MEN.—N. S. Davis, Chicago (Jour. A. M. A., May 5), calls attention to the evil effects of medical advertisements, written as they are to sell the goods and not, as a rule, to state the complete truth, even about the really worthy and scientific preparations. Ready-made prescriptions lead to slovenly therapeutics, and if all members of the medical profession would refuse to employ ready-made mixtures they would destroy one of the greatest hindrances of rational therapy. Most of us are inclined to accept new things and new ideas without sufficiently testing them or demanding the approval of recognized authorities, and the advertising methods used almost force them on us. The remedy, he states, lies first, in recognizing the condition; second, in insisting that the teaching of pharmacology and therapeutics in medical school should be confined to the drugs of the pharmacopeia; third, we should take more interest in the pharmacopeia and insist on its containing only drugs of recognized worth and on its revision often enough to include all valuable new ones. Finally, he declares, pharmacologic and therapeutic research should be stimulated.

COMING MEETINGS.

American Medical Association, Boston, June 5-8.

Medical Society of State of North Carolina, Charlotte, May 29-31.

Rhode Island Medical Society, Providence, May 31.

American Dermatological Association, Cleveland, May 30-June 1.

American Pediatric Society, Atlantic City, May 30-June 1.

American Surgical Association, Cleveland, May 30-June 1.

American Laryngological Association, Niagara Falls, May 31-June 2.

American Association of Genito-Urinary Surgeons, New York, June 1-2.

American Academy of Medicine, Boston, June 2-4.

American Association of Life Insurance Examining Surgeons, Boston, June 4.

American Gastro-Enterological Association, Boston, June 4-5.

American Urological Association, Boston, June 4-5.

American Proctologic Society, Boston, June 5-6.

American Medico-Psychological Society, Boston, June 12-15.

Massachusetts Medical Society, Boston, June 12-13.

Maine Medical Association, Portland, June 13-15.

Minnesota State Medical Association, Minneapolis, June 20.

West Virginia State Medical Association, Webster Springs, June 20-22.

THE NORTH MISSOURI MEDICAL ASSOCIATION will meet at Moberly, on June 21 and 22. An interesting program is being prepared. E. C. Grim, secretary, Kirksville, Mo.

MEDICAL MEMORANDA.

The Modern Management of Malarial Anemia.—One of the most obstinate forms of anemia with which the physician has to contend is that which succeeds malarial infection. This particular form of anemia is, unquestionably, due dlrectly to the structural changes induced by the protozoon parasite. While a mild form of anemia is a common, if not invariable, consequence of malarial infection, there is a severe type, termed malarial anemia, which not infrequently occurs. This latter variety usually responds slowly to curative measures; and, since its existence renders the individual a fit subject for recurring malarial manifestations upon the slightest exposure, the importance of its cure cannot be too strongly emphasized. The doctrine of the latency of malarial poisoning in the human body is rapidly gaining in popularity. Some authorities even go so far as to claim that a person who has once been inoculated with the malarial protozoa never completely recovers. Whether this be true or not, it is certain that the protozoon prarsite does exert an influence which tends, for a great length of time, to lower vitality and render feeble the powers of resistance to renewed attacks. This is especially true in the case of women, children and persons of advanced age. Recent investigations unite in ascribing the cause of malarial anemia to the liberation of hemoglobin from the red corpuscles in the blood vessels. The pigmentation resulting from this liberation of hemoglobin is one of the characteristics of malarial infection. And while the coloring matter may remain in the blood stream, it usually infiltrates into the cells and neighboring tissues. The deposit of pigment is especially great throughout the tissue of the liver and spleen. The thickening and softening of the mucous membrane of the stomach which always attends malarial infection, seems likely to contribute, at least to some extent, to the development of anemia. In every instance the degree of the anemia is in direct ratio to the amount of the hemoglobin liberated from the red corpuscles. And this fact explains the philosophy of effecting repair by the administration of iron, the hemoglobin-contributor. Whether or not the protozoon parasite is ever completely eliminated from the economy remains an unanswered question. But it is now universally conceded that the protracted administration of iron does render the individual partly, if not completely,exempt from a return of malarial manifestations of an aggravated type. Far more so, in fact, than does quinine. Indeed, we have good cause to believe that iron does exert a destructive influence upon the malarial protozoa and increases the immunity of the individual. While it is the chief aim of the physician to make up the deficiency of the hemoglobin in these subjects by the administration of iron, it is distinctly important, coincidently, to increase the appetite and augment the capacity to appropriate the food ingested. To this end, discrimination in the selection of the form of iron to be employed is vitally essential. The acid solutions of the drug are ineligible because of the fact that they cannot be engaged for a long period without harmfully affecting the secretion of the digestive juices and adding to the morbid state of the mucous surfaces or the alimentary tract. Furthermore, the continued use of acid products of any sort are certain to diminish the alkalinity of the blood, thus depressing, to a very considerable extent, the nutritive processes. Then, too, headache which is an ever disturbing factor in these cases, is intensified by all substances of an acid reaction. The strongly alkaline preparations of iron, while less objectionable than the acid ones, are open to fault for the reason that they induce constipation, and in this manner favor auto-intoxication. By far the most effectual form of iron in the treatment of malarial anemia is that which is neutral in reaction and available for immediate absorption. The organo-plastic form of iron, as found in pepto-mangan (Gude), certainly fulfils the requirements of the physician with greater promptness and uniformity than any other product thus far evolved. This preparation—pepto-mangan (Gude)—is by all means the most potent hemoglobin-producing form of iron, and it undoubtedly surpasses other ferruginous products as an invigorator of the digestive and nutritive functions. These assertions are easily confirmed by the microscope. It is also an accepted fact that pepto-mangan (Gude) does not induce constipation, and it seems to materially hasten repair of the mucous surfaces of the alimentary tract resulting from the structural changes incident to the malarial infection, In short, pepto-mangan (Gude) is of inestimable value in the treatment of malarial anemia by virtue of its manifold advantages over other preparations of iron. If this preparation is administered for the proper length of time, the individual gains substantially in strength, flesh, physical and mental energy.

Iodalia an Efficient and Pleasant Alterative.—(By A. H. Ohmann-Dumesnil, A. M., M.E., M.D., Ph.D., St Louis.)—Without wishing to enter into a long consideration of the different varieties and classes of alteratives, their advantages and disadvantages, it may be best to plunge in medias res and take into consideration that one which is universally conceded to be the best general alterative and the one which produces the effects attributed to this class of remedial agents better than any other. The one here meant is iodine ; a most useful and, at the same time, much abused remedy, which is unfortunately but too little understood, and is so potent in its beneficial effects when properly applied in the proper cases. Dr. Nicholas Senn in a paper on "Iodine in Surgery," says, "in the treatment of so-called scrofula and lupus, iodine internally and locally commanded the confidence of the profession for more than a half century before the bacillus of tuberculosis was discovered." It may be further mentioned that iodine has been found efficient in the form of injections

in joint affections, seropurulent in nature, in tubercular peritonitis, locally in erysipelas, in anthrax, etc., but beyond all doubt its most extensive and successful employment, internally, has been in the treatment of syphilis, more especially in that form known as the tertiary. It is here that it has most fully and thoroughly demonstrated its action as an alterative and it is destined to remain the remedy par excellence in this condition for many years to come. As a rule iodine is administered internally in the form of iodides, although it is also given pure in many cases. It has been observed, however, that the salts of iodine, formed by its combination with alkalis, are all more or less irritating. This is due beyond doubt to the alkalies with which the iodine is combined and these symptoms are so marked that they are easily recognized, more especially so far as the objective signs are concerned. Devices have been employed to prevent the usual gastric disturbance, such as taking the iodide in large quantities of milk and the ingestion of large quantities or bicarbonate of soda between meals to prevent the toxic influence of the alkaline salts of iodine. These are fairly good for a short time, but the symptoms of an untoward nature will manifest themselves despite all the precautionary measures taken. The cause of all these disturbances is beyond all doubt dependent upon the alkali which the salts contain and the problem which has been presented was to made a purely organic salt whose action would be as good if not superior from a therapeutic point of view and which would be unirritating, locally as well as constitutionally. Another disadvantage observed in all these iodides, as well as in pure iodine, is the lack of palatability observed in these remedies. We cannot here follow the evolution of the process of experimentation which finally led to the elaboration of a galenical iodo-tanic preparation. A product of definite composition which was always constant was the result. It was found, however, that the combination of iodine and tannin is very hygroscopic and not easily desiccated with any uniformity. This led to a further series of experiments by saccharating it and thus attaining its inalterability. This much having been attained it was an easy matter to make a series of experiments and thus demonstrate the physiologic and therapeutic action of the remedy. The name which was adopted for this saccharated tannate of iodine was iodalia, and it is under this name that it is marketed to-day. It is by no means a secret remedy, as its chemical name sufficiently indicates its nature and its strength, which is uniform, is that of six centigrams of iodine to five grammes of salt, or approximately one grain to every teaspoonful. In appearance it is a white granular salt, not heavy and pleasantly sweet to the taste. It may be taken in milk, water or wine; and is pleasant in this form. It does not in the least disturb the stomach and is very easily assimilated, as proven by the fact that iodine may be found in the urine a half hour after its ingestion. The writer has not yet received any complaints concerning any untoward effects, although he has ordered comparatively large doses to be taken. Its effects are prompt, but perhaps the recital of a few cases will be best.

Case 1. A young man, unmarried, 24 years of age, was referred to me by two physicians, as their efforts had proved unavailing. The patient, when I saw him,was then, anemic, weak and had almost despaired of ever recovering. He had a case of malignant syphilis. The nose and throat were well advanced in ulceration,there was paralysis of the soft palate and the deglutition of liquids was almost an impossibility, not to mention solids. There was perforation of the hard palate,a destruction of the ossicles of the ear and consequent deafness, and altogether he was in a pretty dilapidated state. On inquiry his history developed the fact that he had acquired syphilis three years previously and had no doubt, been insufficiently treated, with the result of the tertiary symptoms which I saw. The patient was immediately placed on iodalia in doses of two teaspoonfuls in water before each meal. This treatment was persisted in, and two months after its inception he presented a bright appearance, he had gained weight, he could eat with ease and he felt better morally and physically. The result so far was a revelation, not only to the patient, but to his former physicians as well. He is still under treatment.

Case 2. A young lady, unmarried, aged 22, was troubled with an intractable case of acne. She had been treated by a large number of competent men with but little result of a favorable nature Upon examination I discovered that the acne was of an atonic form, the patient herself not being in good physical condition. The cervical lymphatics were markedly enlarged,and upon further examination other glands in the same condition were found. This was the solution of the lack of success which had followed the treatment of other physicians as well as of mine. Having determined the cause of the trouble I ordered her to take one teaspoonful of iodalia in water before each meal and was pleasantly rewarded by seeing the eruption nearly well and the tuberculous glands much diminished in size in about three weeks. She will be continued under this treatment for some length of time, more especially as she feels better in all respects.

The indications for the use of iodalia are very simply told. It is indicated in all conditions in which iodine is employed. The list of conditions is too long to be enumerated here. It embraces all those in which alteratives are employed. Among the principle ones are syphilis, localized tuberculosis, lymphatism, arterio-sclerosis, etc. Iodalia is a remedy well worth remembering as an unchangeable iodotannic saccharate, which is easily assimilated and never injures the gastric mucous membrane or produces untoward symptoms.—Abstract from St. Louis Medical and Surgical Journal